

THE SCHOOL GOVERNMENT CHRONICLE

AND
EDUCATION REVIEW

Vol. cxlviii. No. 3,363.
(Estab'd. 1871).

Incorporating "The Education Authorities Gazette"

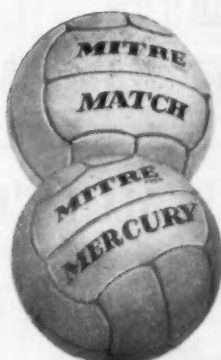
OCTOBER, 1955
ONE SHILLING

**LOCKERBIE
and WILKINSON**
(BIRMINGHAM) LTD.
ALEXANDRA
TIPTON : WORKS
STAFFS

★ CLOAKROOM FITTINGS
★ IRONMONGERY
★ SLIDING DOOR GEAR
★ CYCLE RACKS
★ PIANO ROLLERS

MITRE
REGD
**BALLS ARE
THE CHOICE
TO-DAY!**

Mitre balls have been used
in many Cup Finals and
Representative Matches
and are to-day the choice
of the leading Education
Authorities.



**IDEAL
FOR
SCHOOL
TEAMS**

*Supplied by Leading
Sports Dealers*

MADE BY
Cliff
IN ENGLAND

SCHOOL BALLS
FOOTBALL
NETBALL
RUGGER
ROUNDERS BALLS
PHYSICAL
TRAINING
and all games

Hand sewn
waxed thread

FULLY
GUARANTEED

Your local
Sports Dealer
will supply



Jabez Cliff & Co. Ltd., Walsall

WILL YOU PLEASE LET US QUOTE FOR YOUR NEXT REQUIREMENTS?

For many, many years we have been supplying
TECHNICAL TOOLS AND EQUIPMENT
TO TECHNICAL SCHOOLS IN
ALL PARTS OF THE WORLD
**COMPLETE EQUIPMENTS
A SPECIALITY**

EVERY TOOL WE SUPPLY IS FULLY GUARANTEED AND WILL STAND UP
TO THE HARD WEAR AND TEAR USUALLY GIVEN BY THE STUDENTS

Illustrated Technical Leaflet post free on request

S. TYZACK & SON LTD., 341-345, OLD STREET, LONDON, E.C.1

TELEPHONES:
SHOREDITCH 8301 (Ten lines)



5 surfaces in one unit!

Illustration of Model No. 5 of a series of Sliding Chalkboards of a new design.

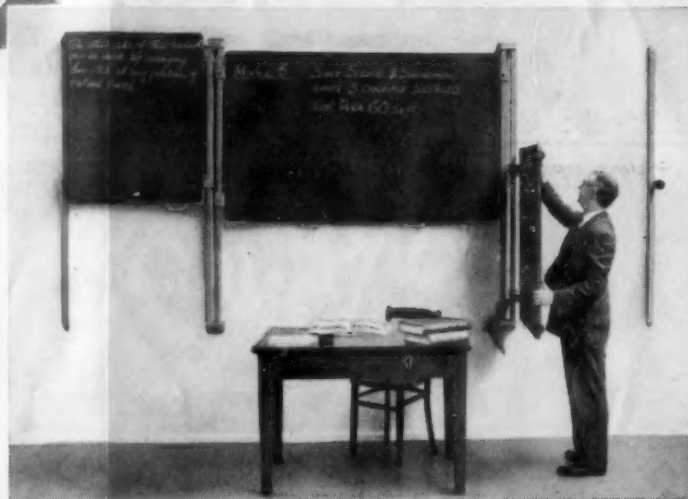
Other models include Tandem arrangements and extra large boards for special purposes. All components jugged and interchangeable.

IMMEDIATELY AVAILABLE.

Write for full details to :

UNIQUE BALANCE CO. LTD.
YEovil ENGLAND

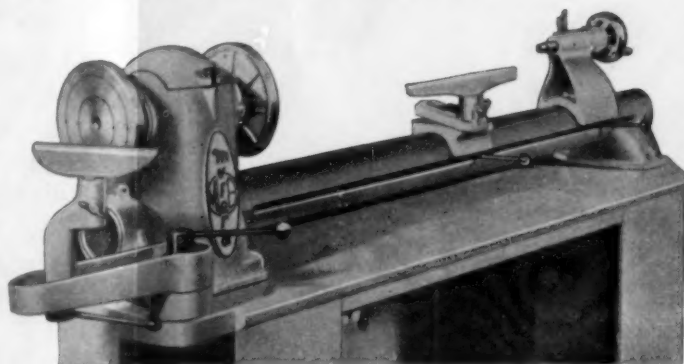
TELEPHONE : YEovil 2231-2



Tabula Chalkboards

FACTS about the ML8 MULTI-PURPOSE WOODWORKING LATHE

- One-piece headstock with totally enclosed drive.
- Precision ground spindle with adjustable heavy duty ball bearings.
- Accurate threads and register diameter at each end of spindle.
- Plunger mechanism locks spindle in any of 24 positions for indexing.
- Bed of heavy gauge seamless drawn steel tube.
- Built in motorising equipment.
- Quick-action lever clamping to all slides. No spanners required.
- Large range of attachments available enabling : Sawing (Bandsaw or Circular Saw)—Planing—Rebating—Sanding—Polishing—Buffing—Long Boring—Panel Sawing—Grooving—Grinding—Metal Spinning—Metal and Plastic Turning.



Full details given in the coloured folder, "Power Tools for the Woodworker." Send for a copy now.

MYFORD · BEESTON · NOTTINGHAM

IN PREPARATION

● **53rd YEAR OF PUBLICATION**

THE 1955/56 EDITION OF THE EDUCATION AUTHORITIES DIRECTORY

(Published annually by the Proprietors of the "School Government Chronicle")

Every Education and Executive Officer of the Education Committees and Local Authorities, the Principals of Schools, Colleges, Training Colleges, Universities, Polytechnics, and others interested in National Education should have a copy of this completely revised and enlarged new edition. More than six thousand corrections have been made. If you have not yet ordered, please do so now.

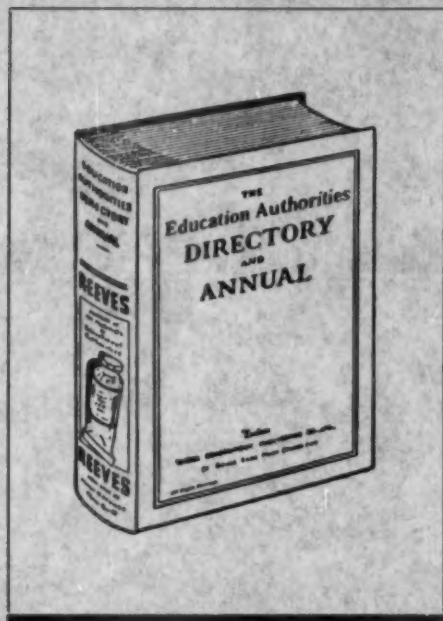
CONTENTS INCLUDE:

MINISTRY OF EDUCATION, Branches and Divisions: Executive and Staff: Inspectorate; National Colleges; Welsh Education Department.
EDUCATION AUTHORITIES (including the Excepted Districts and Divisional Executives) of England, Scotland, Wales and Northern Ireland, with names of Chairmen, Vice-Chairmen, Directors and Secretaries, Medical and Dental Officers; Architects and all other principal officials. With details of Schools controlled.
LONDON COUNTY COUNCIL Education Committee with Sub-Committees: Inspectors; Divisional Officers; Organisers and other officials; Youth Employment Bureau.
HOME OFFICE CHILDREN'S DEPARTMENT.
CHILDREN'S OFFICERS, County and County Borough.
SCOTTISH EDUCATION DEPARTMENT.
MINISTRY OF EDUCATION, NORTHERN IRELAND.
SECONDARY (GRAMMAR) SCHOOLS (England and Wales).
SENIOR SECONDARY SCHOOLS (Scotland).
GRAMMAR SCHOOLS (N. Ireland).
SECONDARY (TECHNICAL) SCHOOLS.
REGIONAL ADVISORY COUNCILS FOR FURTHER EDUCATION.
POLYTECHNICS, TECHNICAL COLLEGES AND SCHOOLS OF ART.
TEACHERS TRAINING COLLEGES.
COLLEGES FOR PHYSICAL EDUCATION.
TRAINING COLLEGES IN SCOTLAND.
UNIVERSITIES AND COLLEGES.
INSTITUTES OF EDUCATION, UNIVERSITIES EXTRA-MURAL DEPARTMENTS.
ADULT COLLEGES.
APPOINTMENTS BOARDS.
PRINCIPAL EMPIRE UNIVERSITIES.
SPECIAL SCHOOLS AND HOMES for Blind, Deaf, Dumb and other Handicapped Children.
HOME OFFICE APPROVED SCHOOLS.
BURNHAM COMMITTEES.
EXAMINING BODIES.
GOVERNMENT DEPARTMENTS.
UNIVERSITIES COUNCIL FOR ADULT EDUCATION.
UNIVERSITIES APPOINTMENTS BOARDS.
COUNTY LIBRARIES.
EDUCATION ASSOCIATIONS.
COMMONWEALTH EDUCATION DEPARTMENTS.
Canada; Australia; New Zealand; South Africa;
India; Pakistan; Ceylon.
COLONIAL EDUCATION DEPARTMENTS.
COMING EVENTS DIARY 1955/56.

OVER
500 PAGES

25/-

(Post Free)



THE OFFICIALLY RECOGNISED HANDBOOK OF NATIONAL EDUCATION

Available from:—

THE SCHOOL GOVERNMENT PUBLISHING CO. LTD.,
98, KINGSTON ROAD, MERTON PARK, LONDON, S.W.19.

Telephone: CHerrywood 2245 and 2246

PRE-PUBLICATION ORDER FORM

To the Manager, THE EDUCATION AUTHORITIES DIRECTORY,
98, Kingston Road, Merton Park, London, S.W.19.

PLEASE SEND WHEN READY.....copies of THE EDUCATION AUTHORITIES DIRECTORY, 1955/56
Edition, for which I enclose Money Order/Postal Order/Cheque for £ : : .

Name.....

Address..... Date.....

Cheques should be made payable to "The School Government Publishing Co. Ltd." and crossed.

5 surfaces

in one unit!

Illustration of Model No. 5 of a series of Sliding Chalkboards of a new design.

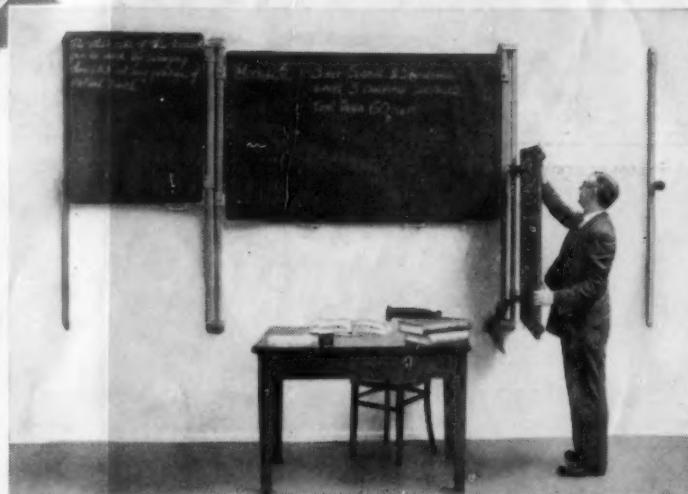
Other models include Tandem arrangements and extra large boards for special purposes. All components jugged and interchangeable.

IMMEDIATELY AVAILABLE.

Write for full details to :

UNIQUE BALANCE CO. LTD.
YEovil ENGLAND

TELEPHONE : YEovil 2231-2

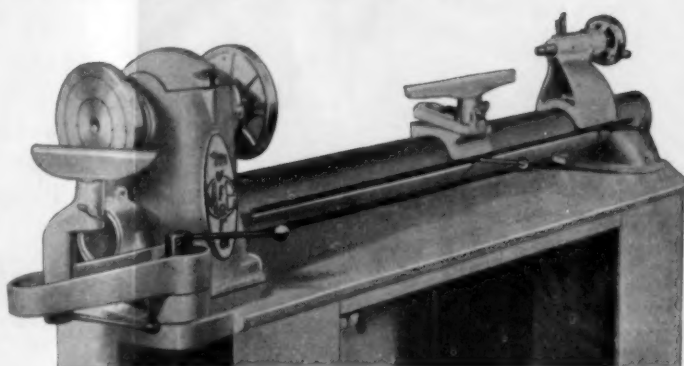


Tabula Chalkboards



FACTS about the ML8 MULTI-PURPOSE WOODWORKING LATHE

- One-piece headstock with totally enclosed drive.
- Precision ground spindle with adjustable heavy duty ball bearings.
- Accurate threads and register diameter at each end of spindle.
- Plunger mechanism locks spindle in any of 24 positions for indexing.
- Bed of heavy gauge seamless drawn steel tube.
- Built in motorising equipment.
- Quick-action lever clamping to all slides. No spanners required.
- Large range of attachments available enabling : Sawing (Bandsaw or Circular Saw)—Planing—Rebating—Sanding—Polishing—Buffing—Long Boring—Panel Sawing—Grooving—Grinding—Metal Spinning—Metal and Plastic Turning.



Full details given in the coloured folder, "Power Tools for the Woodworker." Send for a copy now.

MYFORD · BEESTON · NOTTINGHAM

Full marks -

So tough, so resilient and so long-lasting are Verithin Coloured Lead Pencils that you can make over 4,000 check marks with only one sharpening. Think of the saving this means in your pencil costs. Think, too, of this other important fact—every one of these ticks is absolutely permanent. Rain or spilled water won't make them run. Moist hands won't smear them. Rubbing cannot smudge them.

Another point. Verithin Pencils can be sharpened to a needle-fine point and will hold that point under pressure. Order Verithin today and discover how downright dependable a coloured pencil can be.

7d. each. In 25 vivid colours.



VERITHIN

COLOURED PENCILS

V3
EAGLE PENCIL COMPANY, ASHLEY ROAD, TOTTENHAM, LONDON, N.17

OVER 4,000
TICKS WITH
ONE
SHARPENING



Every PUBLIC AUTHORITY

immediately concerned with the maintenance of Public Health, recognises the important part played by "Killgerm" in the battle against disease.

The "Killgerm" range includes the most powerful of disinfectants for every purpose.

Supplied to Government Departments and Municipal Authorities.

We invite you to write for details of "Killgerm" products which will be sent free and without obligation.

Killgerm

PRODUCTS

THE "KILLGERM" CO., LTD.

Est. 1893

CLECKHEATON — YORKS.

p.p.s.



with
IZAL

LIQUID CLEANSER



For the sparkling cleanliness that comes only when dirt and grease have been completely removed use IZAL LIQUID CLEANSER. For washing crockery, glassware, cutlery, floors, paintwork, ovens—in factories, offices, canteens, schools or restaurants, IZAL LIQUID CLEANSER cleans quickest and surest.

Available in 1, 5, 10 and 40 gallon containers.

NEWTON CHAMBERS & COMPANY LIMITED, THORNCLIFFE, SHEFFIELD

The

SCHOOL GOVERNMENT CHRONICLE

AN INDEPENDENT MONTHLY REVIEW OF EDUCATION.

No. 3,363. VOL. CXLVIII.

OCTOBER, 1955

National Association of Divisional Executives' Conference

Presidential Address by MRS. P. N. PAINE, J.P., of Cheadle and Wilmslow, Cheshire.

At our first Conference in 1947 we were given the blessing and good wishes of the County Councils Association and the Association of Education Committees. I have no doubt that many of their members viewed, with some apprehension the child which the 1944 Act had evoked, and felt that it would need positive supervision to prevent it becoming a juvenile delinquent. But we have seen this Association grow in influence over the years and throughout the period cordial relations have been maintained with these two bodies. Similarly we owe much to the wisdom and the clear perception of the part which divisional executives should play in the administration of education, which has been shown by our own secretary, Dr. White. In all his advice to the executive and even when, on occasion, he has needed to support a divisional executive against some encroachment of its powers or threat of extinction, he has borne in mind that the administration of education is a partnership between the Ministry, the local education authority and the divisional executive, and that each has its distinct and important function to perform. During the past few years much thought has been given to the future pattern of local government. All the statements issued have agreed that the organization of Education is essentially a local service. The intricate and varied pattern of the education services can only be built up by members of local committees who know local conditions and who can interpret general educational policies in the light of those conditions. It is we who know where the houses are being built, where the young families are likely to live and what demand there is for further education. A great deal of movement is taking place. Overspill from large towns, the urbanisation of rural districts, the bringing of new industries into areas formerly concerned with a single industry, are all matters which affect the provision of education within our divisions. For education can never be of one pattern. It must be designed to suit the people it serves and therefore must be as varied as life itself.

The Education Service

When I speak of local education I think of the whole service, which embraces schools, evening institutes and day continuation schools, the youth service, the youth employment service and further education for adults. All those are our concern. We can help them enormously by providing, within our powers, the buildings and equipment which they need. But of far greater importance is the determined effort to maintain *quality* in our services. It has always been true that the standard of a school is determined by the quality of its staff. There is a shortage

of teachers in some areas and many of us count ourselves fortunate if we have two or more applicants for a post, but I would suggest that it is better not to appoint at all rather than to accept an applicant who does not fulfill the requirements of the post or one who, in our opinion, would not effectively contribute to the cultural life of the school or institute. Maturity of mind is not a matter of academic qualifications, nor of the number of years in a training college; it comes from the evidence of wide reading, of appreciation of the Arts and of receptiveness to new ideas. There should also be a sense of vocation. How many of us ask applicants about their leisure interests or why they chose teaching as a profession? Yet these are relevant to the appointment of a person whose mind and character are to be such important influences on his pupils.

In thinking of quality one naturally thinks of books, pictures and music. Whilst it is admirable for this conference to ask the local education authority for better provision, I think we, as individuals, should know or ask what the position is in our own areas. If we accept the need for local control of education we should accept the obligation to see that our locality is not lagging behind in any function which may improve the service and should be energetic in sending resolutions forward on educational as well as administrative matters. Encouragement of reading and introduction to the great store of literature which is our heritage, is vitally important. I am appalled at the popularity of the strip cartoon. Are we so immature that even adults must be told stories in the form of pictures? The extent of this method of presenting fiction ranges from cheap novelettes to some of the classics which are published for children in strip cartoon form. I cannot help feeling that it is better for boys and girls to read, even if at first they do not understand all they are reading. By reading one learns to spell; and I would suggest that if we reduce stories to the level of pictures with captions we lose the magic of words and the capacity to give concentrated attention to anything requiring more than five minutes of time.

However good the provision in schools, an area also needs a good public library. Where the compactness of population is such that a library building can be justified I would like to see young people encouraged to use it, even in school hours. Where a travelling or postal library is the only service available I suggest that training in the intelligent use of a catalogue is of great value.

Radio and gramophone equipment have brought the possibility of hearing good music to every school. This, together with instruction given in the playing of instruments has quickened the interest of the younger generation.

The large audiences which fill the concert halls are 80 per cent. young people, and I believe that some of the responsibility for this enthusiasm is due to the preparatory work done in the schools. So too, the new standards of decor and simple but pleasing furniture and the frequent displays of arts and crafts are having their effect on taste and are teaching our students to reject the spurious and shoddy and seek for themselves the quality and fitness for purpose which is the hallmark of good craftsmanship. I do not regard these activities as "frills" in the school curriculum. They are an essential preparation for the fuller life we all desire.

I have been greatly impressed, in my recent visits to schools, by the way in which teachers, and in particular, infant teachers, coping with large classes and activity methods, have combined patience and a sense of discipline with real affection for their pupils and an enthusiasm for the job in hand. Perhaps the best tonic an administrator or committee member can have is to go into a classroom and sense the purposeful activity of the atmosphere. We all hope that the smaller classes in infant and primary schools will enable teachers to give more attention to the backward pupils, so that they too can be helped to develop to the limit of their capacities.

Shortage of Science Teachers

One of the big problems facing us in the near future is the shortage of science teachers. It is important to remember that this shortage is only one aspect of the general shortage of scientists, and, in the long run, can only be remedied by increasing the total number of students graduating annually in science. Too many able pupils leave school at the age of sixteen and not enough of the remainder are taking science to the advanced level of the G.C.E. This is particularly true of girls' schools. Yet girls make very able scientific techni-

cians and I am sure more women science teachers could be employed. The present national concern over this problem will probably influence more students to take science courses, but the results in terms of graduates from universities cannot be felt before 1959-60, and the big increase in numbers will come from 1960 onwards.

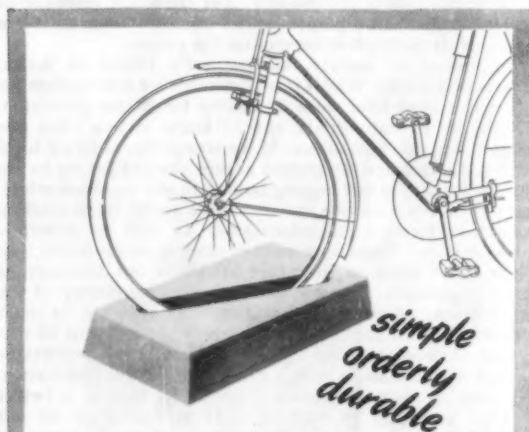
Before that date more teachers are necessary. There has been a steady increase in the number of graduate science teachers during the last two years, but it is still far below average annual requirements. It remains to be seen whether the recent Burnham proposals for increased allowances and the still more recent proposals that, after 1956, science masters in schools will be deferred from military service, have the desired effect of influencing the right type of people into science teaching. I say "right type" advisedly because the 1953 National Advisory Council's Report on "Graduate Teachers of Maths. and Science" suggested that there had been a decline in quality since the war. A reduction in quality is no less serious than a numerical shortage. In the present circumstances it is unrealistic to suggest that Industry might reduce its demands for scientific manpower and I feel that the problem is so urgent that various short term measures to increase the supply of teachers might be considered.

Staying Longer at School

Answering a Parliamentary question in March of this year, the Minister reported that there had been "a steady and satisfactory increase in the proportion of 17- and 18-year-olds staying on at school." The proportion is still fairly low—5.5 per cent. in grant-aided schools and 1.8 per cent. in independent schools at age 17. The Central Advisory Council's report on early leaving states that "from the grammar school intake of 1946, in addition to about 10,000 boys and 7,000 girls who took advanced sixth form courses, there were about 5,000 boys and 5,000 girls who had the capacity to do so if they had stayed longer at school. In other words, there is rather more than one-third wastage of potential. Why do pupils leave early? Undoubtedly one of the reasons is economic; not only the necessity to earn money because of family circumstances, but the attraction of a high wage rate in many occupations. The recent legislation which has increased maintenance rates for students at universities and training colleges and the increase in the income tax child allowance and its extension to cover all full time students are welcome and important reliefs to those parents who wish their children to take full advantage of educational facilities. Good parents are usually willing to make sacrifices for their children's education and it may be that the new concessions alone will not make an appreciable difference to the numbers staying on at school—but they will ease the economic climate of the home. And that is important! The present tendency for students to accept paid work during the holidays is not altogether desirable. There is some virtue in experiencing the practical aspects of life, but too much time spent in earning holiday money limits the time for general education and wider reading and for complete relaxation, all of which are necessary preparations for further courses of advanced study.

Examinations

The other reason for early leaving is failure to make the grade and is, in itself, a criticism of our selection procedure. I think we are in great danger of stressing the importance of intelligence as the key to ability to profit from further education and failing to take into account the equally important characteristics of power to concentrate, ability to absorb information, determination and conscientious application to the job in hand. These are qualities which cannot be assessed in the type of examination now popular—nor perhaps in any type of one-day examination. I have been most impressed by what I have seen of comprehensive



Stelcon Bicycle Blocks are made of reinforced concrete, and are therefore resistant to corrosion in all weathers. The Blocks remain firmly in position on the ground under their own weight and when let into the surface of the park cause no obstruction when not in use. Full details sent on request.

Stelcon

BICYCLE PARKING

STELCON (INDUSTRIAL FLOORS) LTD.
CLIFFORDS INN, LONDON, E.C.4. Tel. CHA 9541

schools and their greatest worth lies in their capacity to re-assess the abilities and potentials of their pupils in the light of work done in the classroom and social behaviour in the school community. I feel that if local circumstances and existing provision make the tripartite system necessary, the selection procedure should be extremely fluid and capable of constant review and adjustment between the ages of 11 and 15. This means the supplementing of examination results by record cards, a consideration of the home circumstances of the child, its desires in the way of a future career, recognition of the "late developer" and, to make all these things possible, the provision of enough grammar school places to admit all who may benefit from a longer school life. It cannot be too strongly stated that, if there is to be selection for grammar school, the selection should be on merit and ability to profit and should not be determined by the number of available places. We are now approaching the period when our secondary schools will be taxed to capacity by a larger age group. We should make adequate provision for all those who may benefit from a longer school life. In this connection it is difficult to justify an arbitrary figure of even, say, 25 per cent. for those requiring education over the age of 15. We are only at the beginning of secondary education for all. The demands of industry are such that training in technology now requires a wide general educational base, and without that background particular skills cannot be fully developed. In my opinion, the General Certificate of Education, to ordinary level, is the proper foundation for further study in the proposed sandwich courses for young men and women in industry and the new National award in Technology. Suggestions have been made that a lower grade examination is more suitable for secondary modern school pupils. I have grave doubts whether such a test would be acceptable to employers. As I see it, the G.C.E. is a reasonably well defined and well understood basis for further study or appraisal by a prospective employer. I look forward to the eventual raising of the school leaving age to 16. It would, however, be a great pity if any substantial part of the curriculum in the later years were devoted to vocational training. In my opinion, vocational training is best done in Institutes for Further Education properly equipped for the purpose, or by industry and the professions with schemes of their own run in conjunction with the local education authority.

Youth Employment Service

It is fitting that the Youth Employment Service should be administered by the education service and that divisional executive members should be asked to sit on district youth employment committees along with representatives from industry and the schools. The careers advice given to school leavers, the individual interviews and the follow up evenings are all designed for the same purpose—to fit the right peg into the right hole as far as is humanly possible. There is nothing so essentially right as a person trained for and doing his chosen job. Since they took over the Service in 1948 the youth employment committees have not been unduly worried about the placing in employment of young people. There have been pockets of unemployment, but usually of short duration and due to temporary recessions in trade such as that in the textile industry three years ago. But the time is coming when the larger age group will be leaving the secondary schools and, unless industry is to expand still further and export trade extend its markets we may well be faced with a surplus of school leavers seeking jobs. The higher productivity of industry does not necessarily demand increased personnel. Indeed, the general tendency is to attain the desired result by mechanisation and by work study methods. In this highly competitive atmosphere there is created a great demand for further training. Many large industrial concerns have their own schemes which, no doubt, serve a dual purpose of attracting the bright and ambitious boys and girls to their payroll and

giving the employer the opportunity to observe and select for jobs within the organization. But there are thousands of smaller firms who are realising the value of further education and who are being encouraged by their trade associations to consent to agreed schemes for systematic training of young workers. These people are looking to the education service to provide the required courses. The demand for day continuation classes is coming from industry and from parents and students. I feel sure that the next big advance in education will come from the implementation of that part of the Act dealing with county colleges and that it will come about in the best possible way—in response to a demand from below rather than the imposition of an idea from above.

Further Education

A great deal remains to be done in the sphere of further education for those who leave school at the age of 15. Whilst I welcome the suggestions of the Minister that new schools should be provided with additional accommodation for evening use, I would regard this as a temporary measure and look forward to the day when evening institutes for adolescents will be abolished and a universal system of day release takes their place.

In the meantime much can be done to liberalise the present courses in evening institutes and to introduce non-vocational courses in response to demand. There are practical difficulties in the way of dual usage of schools. Given goodwill between the two groups of staff, joint user of equipment is not an insuperable problem, but it is not easy to get away from the classroom atmosphere. Young people over school leaving age are loath to return to classrooms and only do it, of necessity, for the purpose of taking examination courses. Older people bear the discomforts of desks in a row, often inadequate lighting and

Careers Masters!

The Royal Navy wants the best men in the right places.

The system of advancement is as fair as can be devised.

The rewards are substantial.

Full details of careers available are published in the book "The Royal Navy as a Career" which will be sent on application to—

The Director of Naval Recruiting,
Admiralty, London, S.W.1

the lack of proper equipment, for the sake of companionship and the practising together of some skill or the delights of the discussion group. Such arrangements are a pitiable substitute for further education provision as it should be. The growth in the number of classes used by adults and the rapid expansion of further education facilities provided through education centres, community centres, women's institutes, and the like, lead me to feel that provision for non-vocational education should be by local authority and Ministry support of voluntary bodies—either in centres for which some share of the finance and all the responsibility of running them lies with the voluntary committee or, where this is not possible on the ground of dispersal of student population, by encouragement of an independent group using whatever premises it considers to be of the right atmosphere and compatible to its particular method of self expression. I would extend this provision to Youth Groups also. Provided there is responsible leadership, a group meeting in a leaky shack has more sense of unity and of responsibility for its own organization than one meeting in the finest school premises. The Englishman is highly individualistic. He likes to run his own show. And by the practical demonstration of this desire, aided by the resources, financial and tutorial of the local authority and the university, he learns, at first hand, what democratic organization really means. The responsible citizens of the future, those who are going to take our places in local government, can be trained through voluntary organizations. No mere provision of classes for adults will achieve the same object.

In circular 283 the Minister has relaxed the restrictions on direct grants to voluntary bodies and local education authorities under the Physical Training Act, 1937. It is for us to see that this change in attitude is implemented locally and to give sympathetic consideration to any applications made to us for aid under this Statute.

Because of pre-occupation with the essential needs of compulsory education we have not hitherto given full implementation to the provisions in the Act concerning further education. Surely in the next decade that will be possible! Is it too much to hope that we are entering on an age where the shadow of war will lift, the benefactions of nuclear power will be exploited and, in that sunny climate, the full development of the spirit of man will be possible?

I cannot conclude without referring to that constant proportion of conference delegates, the officer members; that noble army of martyrs who bear with our idiosyncracies, quietly correct our inaccuracies, and go away from lengthy meetings—with a sigh—to get on with the job in hand. Many of them lack adequate office staff, too many of them are so overwhelmed by the mass of detailed administrative work that they have little time for going around the schools and still less time and energy for planning educational needs in their area. Yet, over the past nine years, a feeling of confidence in the divisional officer has been built up. He is the man on the spot, to whom all queries can be addressed; the link between the area and the local education authority, the buffer between the local education authority and the area. Whatever form local organization may take in the coming changes it is certain that a local officer will be necessary and it is on his quality and status that the effective working of the system will depend.

About ourselves—lay members of divisional executives. A recent memorandum on "Voting for Local Councils" issued by Political and Economic Planning, draws the general conclusion that more interest is shown in county borough elections and in elections for county district councils than in elections for county councils and the large boroughs. It would seem that public interest is stimulated by the smaller unit and by intimate knowledge of the candidates. I believe that the measure of interest taken by the public in local affairs has a direct relationship to the

extent that committee members know the local circumstances connected with their office. This means much more than attendance at committee meetings. It requires that members must be interested and well informed on educational matters, must visit the schools and centres of further education, and must show willingness to advise on, or channel in the right direction, any questions which may be put to them on the service in their area. Common sense is not enough! It must be backed by knowledge of the powers and duties of an education committee, an understanding of the main educational issues and by a sense of great responsibility to those for whom education is provided.

Let us then go forward, confident that this is a job well worth doing and worth doing well. By so acting we revitalize local government and will get the response we deserve.

The State and Independent Schools

The policy of the Ministry towards Independent Schools was outlined by Mr. Dennis Vosper, Parliamentary Secretary at the Conference of the Incorporated Association of Preparatory Schools at Oxford, last month.

While the State did not claim a monopoly in the conduct of education, he said, it cannot divest itself of all responsibility for those children whose parents prefer to have them educated in schools outside the public system. These parents were entitled to have some assurance that the independent schools of their choice are sufficiently well-found and staffed to fulfil the educational purpose which they profess.

This assurance is given in Part III of the Act and considerable preparatory work has been done to enable the necessary provisions to become operative sometime in 1957.

It should be clear Mr. Vosper went on, that this part of the Act is intended, not to drive the independent school out of business by insisting on impossibly high standards but to provide a safeguard against the black sheep which occasionally enter the fold, achieving notoriety which reflects adversely upon all independent schools.

In this connection and as a prelude to Part III Miss Horsburgh asked all independent schools in their own interests to submit voluntarily lists of staff. This request has met with an amazing response, and out of a total of about 3,500 only twenty-three had not responded by the end of July. This check had been valuable, and the results disprove the allegation that the independent schools are a retreat for undesirable teachers.

Part III would throw no additional burden on the independent schools provided standards are maintained.

Together with the Minister's advisers he had recently been examining the provisions of Part III to see if they were in danger of using a sledgehammer to crack a nut. He thought they would agree that this was not the case and he could assure them that the Ministry would:

- (a) keep requirements to the minimum;
- (b) avoid regimentation or excessive uniformity;
- (c) act in consultation with the Association concerned.

By so doing and by offering an incentive rather than by wielding a stick it should be possible to guarantee a standard at least as high as in a State primary school with the minimum of casualties.

The Wiltshire Education Committee were told at their last meeting that it will cost £220 to take one pupil from Great Yaws, near Salisbury, to and from Combe Bissett school, three-and-a-half miles away, when they accepted the only tender of £1 2s. per day. When a member asked whether there was any hope of transporting this one child at less cost Cdr. O. C. G. Leveson-Gower, chairman, promised the committee that the situation would be carefully watched.

Perstorp

takes all the kicks

AND

SAVES THE HA'PENCE!

Perstorp Panels stand up to the roughest treatment. Despite the onslaughts of paint, plasticine, grease, ink, youthful kicks, the velvetsmooth surface comes up as new at the touch of a damp cloth! Wherever the need is for tough and durable surfacing—in classroom or gym, laboratory or dining hall—Perstorp Panels give a lifetime's hardwearing service.* They make immense savings in cleaning and maintenance costs . . . eliminate expensive renewals. Perstorp Panels offer a wider colour range, too—yet cost no more than any comparable product.

* Perstorp Panels fitted in Stockholm's main railway station 19 years ago are still in perfect condition to-day!



Here seen on corridor walls, Perstorp Panels make immense savings in cleaning, maintenance costs. A damp cloth quickly banishes all trace of stains and fingermarks. Available in a wide variety of fade-proof colours with an exquisite finish that compromises elegantly between matt and gloss.



PERSTORP PANELS

Made in Sweden and sold throughout the world by

SKANSKA ATTIKFABRIKEN AB • PERSTORP (SWEDEN)

The leading plastic laminate manufacturers of Scandinavia for over 27 years.

LOOK FOR THIS LABEL! YOUR GUARANTEE OF HIGH QUALITY

All enquiries to agents for the U.K.: C. F. ANDERSON LTD., Harris Wharf, Graham Street, N.1. CLERKENWELL 4582 • GEO. E. GRAY LTD., Joinant House, Eastern Avenue, Ilford, Essex, VALENTINE 2211 • HEATON TABB & CO., LTD., 55, Bold Street, Liverpool, 1. ROYAL 3457 • RUDDERS & PAYNES LTD., Chester Street, Aston, Birmingham 6. ASTON CROSS 3071 • A. J. WARES LTD., King Street, South Shields, South Shields 2380

The Secondary Technical School

The main theme of the addresses at the Conference of the Association of Divisional Executives was "The Prospect for Secondary Education," and following Dr. Alexander, who gave a general survey of secondary education, Mr. P. F. Surman, Head Master of the Chatham Technical School for Boys, spoke on the contribution of the secondary technical school.

It was necessary to remember, he said, that there is greater variation between individual technical schools than in others, partly because they have usually been much more closely associated with local conditions and local industry than others. The difference between a grammar and a technical school was in its atmosphere, and there was a feeling in a technical school that it was good to do things and to learn by doing them—that a boiler suit was better than a white collar.

The early curriculum of a technical school, said Mr. Surman, is as wide and as liberal as any grammar school: it is, indeed, even wider because it gives a proper opportunity for hand and eye development, and it does not accept the sometimes limiting restriction that an external examination may impose. It includes a foreign language, some music, art, the most general of science, although it might be less traditional, that the absence of an opportunity for hand and eye co-ordination is a handicap to a budding surgeon. The early years are general and diagnostic, certainly to the extent that we recognize talent beyond our sphere—in music, in art, in pure humanities—for immediate or later transfer. The only bar to a proper ease of transfer is a mistaken sense of social distinction.

A second point he wished to make, Mr. Surman went on, was that selection for technical education is an arrow aimed at a larger target. The bull might be highly skilled technologists, but the inner and the magpie and the outer were still target shots. "What is the proportion in life," he asked, "of dons to draughtsmen, of journalists to journeymen, of writers to workers, of clerks to craftsmen? It is perhaps a true parallel to ask what proportion of pilots to engineers there is in the R.A.F. A general technical education, an eye to doing and a pride in doing is a better preparation for life, and a comparative failure in a technical school course is still able to find a niche in industry."

"A straight and equal selection on intelligence quotients," he continued, "will give a smaller chance of misfits in a technical school than in a grammar school, and if that is married to a wise and genuine expression of considered and unprejudiced parental opinion the chance is smaller still. We can show consistent course completion figures of over 90 per cent.; and while those relate to thirteen year entry, I am confident that the eleven year entry figures will be comparable.

"It would be a mistake to give the impression that it is vastly different from other schools. The later curriculum may well be coloured by the nature and character of the school, but the life of a boy growing in the school is by no means restricted. The extent and nature of practical approaches in laboratory science, in mathematics, are an invitation and never a curb to an enthusiastic teacher. We expect to devise and to make apparatus, apparatus that may start with string and cardboard but that will progress to good design. But in humanities, for example, our main care is a broad general education. There may be an awareness of the school's character in the subjects chosen for English essays; there may be wisdom in using the boys' interests and their immediate temporal and spatial background as an introduction to the broader aspects of national and international history, of local, national and world geography. But I suspect that any good teacher would do the same.

"The problem of a general certificate is a real one. Our approach to it is that if a boy has the ability to attempt it, if there is some purpose for which he needs it, if it is possible for him to succeed in a reasonable grouping of subjects, then he should have the opportunity.

"But I am not completely happy that the real strength of technical school boys is given proper expression in existing general certificate papers. I realize the difficulties of practical examinations in science at this level, but a purely descriptive paper is not a fair test of a boy's science."

The Prospect for the Future?

"I am sure technical schools are needed," said Mr. Surman, "and that they have a contribution to make to our national life and economy. You will know the present concern about the shortage of science graduates: the Minister's actions concerning payment for advanced level teaching, in deferment of military service, in his plans for technical colleges show that necessity. But I am not sure that the prime shortage is of science graduates.

"I made an analysis of the 'Public Appointments' and 'Appointments and Situations Vacant' advertisement columns of the *Times* for a week chosen quite at random. In the first 31 per cent. and in the second 46 per cent. of the posts offered were for engineering appointments asking clearly for an engineering background. That is sufficiently significant as it stands, and becomes even more so when it is remembered that the *Times* is not the first and most natural advertising medium for such appointments.

"Frankly, I don't believe there is a shortage of scientists: but there is a shortage of applied scientists, an acute shortage of the 'clever doers,' of men who combine intelligence and initiative with practical knowledge and skill and practical interest. The flow of science graduates from the universities has turned towards industry at the expense in some measure of scientific education; but industry has more often than not to change and reshape these men, sometimes to their own discomfort.

"That is where we come in. But however great the economic contribution of these schools may be, I cannot help but feel that their attitude to life might well become more general to great advantage."

North of England Conference

Arrangements are well in hand for the 1956 meeting of the North of England Education Conference. It is to be held in Harrogate from Tuesday, January 3rd, to Friday, January 6th. The conference will be concerned with an assessment of the successes and failures of schools to-day to fulfil the requirements of society in certain fields. The place of science and of the arts will be examined. Sessions will discuss "How can we help Religious Instruction?" and "The School as a Preparation for Society." A period will also be devoted to the practical question of the future of school maintenance.

Dr. Birley, Headmaster of Eton, has accepted the Presidency of the Conference; speakers include Dr. Bronowski, the Bishop of Peterborough, the Bishop of Leeds, Dr. Rupp, and Mr. Duncan Fairn (H.M. Prison Commissioner).

Sir David Eccles, the Minister of Education, has informed the Governors of Direct Grant Grammar Schools that he has decided to increase the capitation grant for each pupil in the Upper School by £1 15s. to £30 a year. He has also decided to increase the grant for each eligible pupil doing advanced work in the sixth form from £20 to £40 a year. These increases will be made retrospective from April 1st, 1955. There are about 71,000 pupils in the Upper School of Direct Grant Schools.

**Economy!
Speed!
Cleanliness!**



There is no need to elaborate on the superiority of the modern POWER PEELING over the old-fashioned hand peeling methods. In the 'John Hunt' Power Peeler the potatoes are perfectly peeled with a smooth finish and a minimum loss of weight. 'John Hunt' machines are used in the canteens of the Houses of Parliament and Rolls-Royce, etc.

POWER POTATO PEELER

A NEW MODEL by John Hunt

7-10 lb. CAPACITY

Guaranteed

12 MONTHS

Fitted with Ball Race Bearings, no lubrication required

£31.10.0

* Complete and ready for immediate operation.



We also manufacture

**Pastry Rollers, Pie and Tart Machines,
Mincing Machines, Vegetable Slicers and
the Famous Duratax Electric Cake Mixer**
'CHEAPEST TO PURCHASE AND MAINTAIN'

Please write for Full Details and illustrated literature to:

JOHN HUNT (BOLTON) LTD

ALMA WORKS, RASBOTTOM STREET, BOLTON

Tel.: BOLTON 5831-2

Telegrams: HUNT 5831 BOLTON

Sir Ronald Gould on Threats to the School Building Programme

And Rumours of Government Economy Cuts

Speaking at a meeting of teachers and local authority representatives in Middlesbrough, last month, Sir Ronald Gould, general secretary of the N.U.T., said: "During the last few months parents, teachers, representatives of local authorities and all those concerned about the future of education have been enheartened by the optimistic statements of Sir David Eccles. In June he told us that 'the times are on our side,' and his frequent references to the exciting possibilities of the future have raised everybody's hopes.

"The Association of Education Committees has prepared a general plan of education for the next five years; the T.U.C. has called for the raising of the school leaving age, and educational journals have discussed the rival merits of this and the establishment of county colleges. Local authorities, at the instigation of the Minister, have drawn up impressive plans to reorganize rural schools and renovate slum schools—measures long overdue—and even the possibility of urban reorganization has been mooted by the Minister. Clearly, all of us have believed that steady progress could be expected.

"In the last week or two, however, doubts have arisen. The increase to 5 per cent. in the rate of interest charges by the Public Works Loans Board, the fourth increase in about a year, will add considerably to the cost of local authority building programmes, and while one cannot yet estimate the effect on educational development, there is much apprehension about the financial implications of the latest increase.

"Local authorities want to know what the Government's intentions are: does it want fewer schools and houses, or does it want local authorities to pay more for them? Unless some clear indication is given the impression will grow that the Government is seeking to achieve by indirect means cuts which it declines to impose directly. Sir David Eccles should end the uncertainty by giving an assurance that the school building programme he has already approved will go ahead unhampered.

"Further uncertainty has been created by rumours that all Government departments are to be asked to make a 5 per cent. cut in their expenditure. If this rumour has any basis in fact, I would warn the Government of the grave dangers in such a step. We are only just recovering from the economies enforced by the Government in 1952. Experience showed then that a cut of 5 per cent. in educational expenditure is impossible without severe damage being done to the opportunities afforded to our children.

"A reduction in expenditure would once more plunge local authorities into a state of confusion. It is unfair to them, as it is to children, parents and teachers for the Prime Minister and the Minister of Education to tell the country, in the Spring, of big plans for advance in education; and for the Chancellor of the Exchequer now to imply retreat. Surely it is not unreasonable to ask for a consistent policy of advance to be followed over a period of a few years.

"An overall cut in Government expenditure of 5 per cent. is a blunt instrument which will hack at good, bad and indifferent alike. It takes no account of the social and economic value of the different activities with which the Government is concerned.

"It will, of course, be argued that the Government's intentions were good, but that they have had to be reconsidered in the light of the economic crisis facing the country. It is precisely because education is immensely relevant to our national problems that the Government

must avoid cutting expenditure on it, and indeed must devote more of the national income to the service.

"There is now general recognition that our future economic well-being depends on the development of new technical and scientific skills and the full utilisation of our native abilities. In all this education is of crucial importance—it is an investment essential to the nation's future prosperity. To impede its expansion at this stage for the sale of economies of questionable value, would be the purest folly.

"Since the Government is pledged to a policy of educational development and since education means so much now to the social, political and economic well-being of this country, I hope a representative of the Government will make it clear that the education service is not to be curtailed or hampered, but that the Government is determined to work with local authorities for its further development."

Education and Politics

Mrs. P. N. Paine, the new president of the Association of Divisional Executives touched on an interesting point in the introductory remarks to her presidential address.

Mentioning the fact that she had been the delegate of her Divisional Executive for nine years, she said she considered herself fortunate in being a co-opted member of her Executive and thus had not had to present herself to the electorate every three years.

This, she said, had given her the enormous privilege of continuity of office and the time to devote to matters of education. Expressing the opinion that three years on a Committee was the least period in which a member can become fully familiar with the powers and duties of a divisional executive, she voiced the hope that, if there are to be changes in the structure of local government, some thought will be given to reasonable continuity of office on committees dealing with public services and to the desirability of retaining on education committees members with special experience of education.

This certainly applied in the days of the school boards and to a large extent pre-war, but with the increasing encroachment of politics into local government we see more and more the squeezing out of the experienced and conscientious members of education committees in favour of party machine nominees, the main object being to maintain the party majority, no matter if the members' experience of education is nil, so long as their vote for the party machine is assured.

Thus when the political complexion of the council changes we find frequently an entire change of policy and membership. And this can happen every three years, or even every year in borough council areas.

The education committee is the one committee above all where experience and continuity of policy should be the dominant considerations, and those who place education above political manoeuvres will echo Mrs. Paine's plea for continuity in office of members with experience in education.

Commenting on the improved health of children compared with about twenty years ago, when he was working in another area, Dr. K. J. Grant, Great Yarmouth's principal school medical officer, says in his annual report: "It may be worth pointing out that the hospital beds which cannot be kept reasonably filled in this area—and in many other parts of the country—are those provided for children and for infectious diseases." While it would be wrong, he says, to attribute the improvement entirely to the School Health Service, it has undoubtedly been one of the major contributors. In Great Yarmouth he describes the health of the schoolchildren as being on the whole very satisfactory.

'ENGLISH ELECTRIC'

hand-driers

hygienic

and

economic



'ENGLISH ELECTRIC' hand-driers are ideal for school cloakrooms. They dry the hands quickly, quietly and thoroughly and do not spread infection or become untidy. Because they eliminate waste and need no attention they form the most economical means of hand drying. They are completely safe and are built for rough usage.

'ENGLISH ELECTRIC'

THE ENGLISH ELECTRIC COMPANY LIMITED, QUEENS HOUSE, KINGSWAY, LONDON, W.C.2

F.H.P. Motors Department, Bradford

WORKS: STAFFORD • PRESTON • RUGBY • BRADFORD • LIVERPOOL • ACCRINGTON

4D.7DS

Parliamentary Secretary on Teacher Training

More Student Teachers Than Ever Before

Announcing the latest figures in the recruitment of teachers at a meeting of the Leeds Teachers' Association, Mr. Dennis Vosper, Parliamentary Secretary to the Ministry of Education, said that the continuing demand for places in the training colleges gives the lie to the assertion that teaching is a depressed profession. For the coming academic year, we had once again, on the 1st September, got more than 11,500 recruits for the 2- and 3-year courses. There were still a few vacancies, mainly owing to cancellations, but this year many candidates had had to be turned away, and the Ministry was writing to the Colleges asking them to ensure that these vacancies were filled. Thus for the coming session there should be more students in the training colleges than ever before.

These latest recruitment figures, said Mr. Vosper, gave them encouragement in their hope that they would be able to go on increasing the teaching force by as many as 6,000 a year, as they had on the average since 1950. "At present," he went on, "when we include some 3,000 graduates, we are recruiting over 14,000 new teachers a year, but this in itself would be insufficient if we lost 10,000 serving members of the profession. Our success in the task we have set ourselves depends—as so much else—on the married women. As many as one-third of women teachers are today married, and it is upon their readiness to answer appeals for additional staff that the difference between success and failure depends.

"We have then reasonable hopes of making good our promise of a rapid reduction in the size of classes in the primary schools. But our success in this direction depends on getting the available teachers in the places where they are most needed.

"It is understandable that young teachers leaving the colleges should be tempted by the lure of London and the Home Counties. Some urban authorities in the North and Midlands are still finding it extremely difficult to attract the teachers they need. If teachers would look more favourably upon these important areas it would make an enormous difference to the quality of education which the children there receive, and would bring much needed relief to the serving teachers, sorely tried by overcrowded classes."

Local education authorities who experience difficulty in obtaining their share of the teachers available, added the Parliamentary Secretary, should take all steps within their power to make the life of the teacher in the industrial cities as attractive as possible. This was not a matter only for education committees but for local authorities, voluntary organizations and ratepayers alike who in their own interests should be concerned to improve the status and circumstances of the teacher.

Shortage of Science Teachers

On the secondary side Mr. Vosper referred to the need for good teachers of science and mathematics, and said that certain recent developments in this field showed signs of having been misunderstood.

Critics often failed to distinguish between the long-term and the short-term problem. There would undoubtedly be a shortage of scientists for all professions for many years to come and the only way to overcome this was to persuade a greater proportion of children to study science and to stay longer at school. This long-term problem was serious enough, but in the next few years there would be a special difficulty.

In the immediate future the problem was not only to increase the proportion of science students, but to find

enough teachers for the additional seniors who will soon be in the schools—well over half a million of them.

It was against this background that they must look at the proposal which the Government announced at the end of July to give favourable consideration to indefinite deferment from National Service of first and second class Honours graduates in science and mathematics who take up teaching. This proposal had been criticised by teachers on the ground that, if the only way to attract teachers is to bribe them by virtual exemption from the general obligation, then the profession is better off without them.

These criticisms showed how little the true purpose of the Government's proposal was appreciated. The Government had found this a difficult decision to make but they had been compelled to do so simply because it was the only way in which an immediate increase in the number of graduate teachers in the schools could be achieved.

The Government was not trying to bribe people to take up teaching. It was already possible for a person with a good science degree to gain indefinite deferment if he took up work of especially high importance in any one of a large number of posts in the public service or in industry. In making provision for the deferment of science teachers, therefore, the Government had not introduced any new principle, but had removed the handicap of teaching as compared with other fields of opportunity open to scientists.

It was never their expectation or aim to attract a large number of additional graduates into teaching by this means. Their aim could be expressed quite simply: it was to get intending teachers of quality into the schools two years earlier—those two years might make all the difference. Those who feared disharmony in the staff-rooms perhaps did not appreciate that the prime purpose of this operation was to speed up the entry of those already intending to teach.

School Accidents

A report in *The Medical Officer* by Dr. J. J. Reid, of the Department of Public Health and Social Medicine, St. Andrew's University, says that accidents due to rough play are two and a half times more common among boys than girls, and those ascribed to disobedience are almost twice as common in boys.

Dr. Reid investigated school accidents in Buckinghamshire. There were 954 in two years, 618 to boys and 336 to girls. Forty per cent. occurred in playgrounds which, he suggests, should be made smooth because loose gravel causes falls and becomes embedded in wounds.

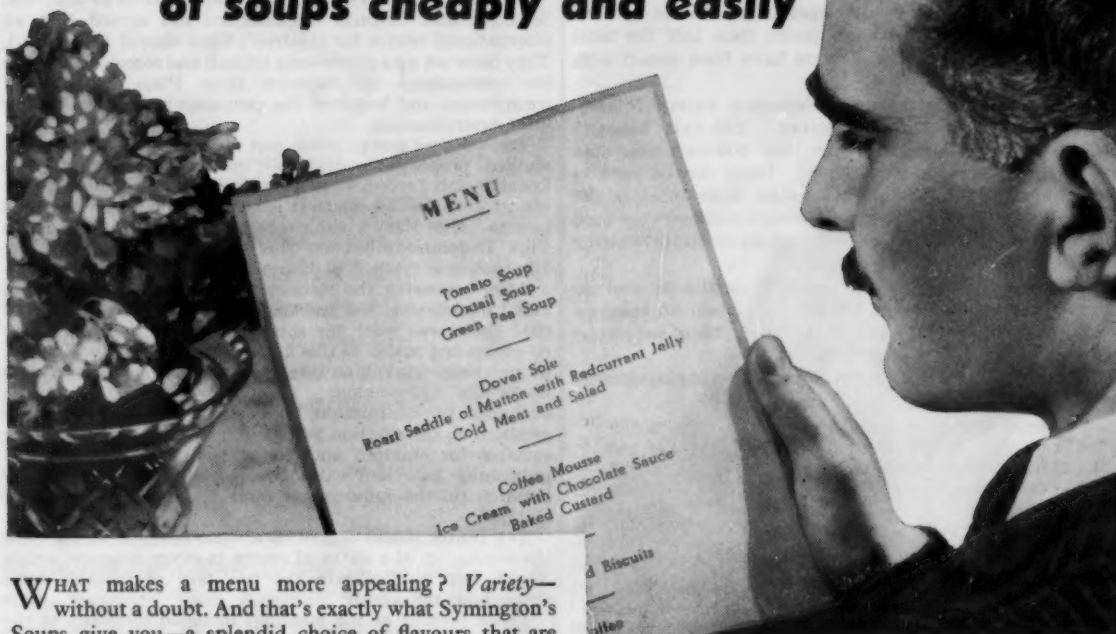
Rough play included moving a chair from under someone about to sit down, playing with knives and prodding a friend with a garden fork. Noting that twenty-two accidents occurred in school gardens, Dr. Reid suggests routine anti-tetanus immunisation of all school children.

"Accidents from fighting appeared to be found almost exclusively in the male, although one solitary Amazon of 13 years sprained her wrist by hitting a boy. Her efforts were apparently wasted, as no record could be found of any complementary injury to the youth."

Equal Pay for Teachers

The Northern Ireland Government has approved of the policy of equal pay for men and women teachers in Northern Ireland on lines similar to that already in operation in Great Britain. The salaries of women teachers will be increased by seven instalments. The first instalment will become payable as from the 1st October and the remaining instalments as from the 1st April of each succeeding year, equal pay being thus fully achieved by 1st April, 1961.

NOW... you can offer a choice of soups cheaply and easily



WHAT makes a menu more appealing? *Variety*—without a doubt. And that's exactly what Symington's Soups give you—a splendid choice of flavours that are quick and easy to make and very economical.

Symington's give you the opportunity to ring the changes with your soups—with or without your stockpot. So now you can top your menu with a choice of soups every day of the week, cheaply and easily.

Symington's Soups enable you to serve even better and cheaper meals. Choose from these flavours—Tomato, Oxtail, Kidney, Mock Turtle, Green Pea, Mulligatawny, Pea, White Vegetable, Hare, Lentil, and Celery. In 7-lb. bags, at 14/7d., 7-lb. tins at 15/2d.

YOU SAVE TIME AND TROUBLE —GET CATERING ADVICE FREE

Symington's supply a wide range of catering products that help you plan your menu—from soup to sweet. So, from just one supplier, you can get high quality, quickly prepared, delicious foods at competitive prices.

If you are not already being called on, send us a postcard. Samples of any product will be readily sent to bona fide caterers on application.

If you send us tender forms, we shall be glad to arrange quotations on bulk quantities.

• SYMINGTON'S *Soup-to-Sweet Service* •

• NOW, FOUR LUXURY COUNTY SOUPS •

Four sumptuous luxury Soups—Tomato, Mushroom, Chicken and Green Pea—with superb natural flavours. In 7-lb. tins, Tomato, 28/6d.; Mushroom, 31/3d.; Chicken, 48/9d.; Green Pea, 25/3d.

• **STANDARD SOUPS**—available in Tomato, Oxtail, Kidney, Mock Turtle, Green Pea, Mulligatawny, Pea, White Vegetable, Hare, Lentil and Celery flavours. 7-lb. bag 15/2d., 7-lb. tin 15/9d.

• **SYM GRAVY POWDER**—for the tastiest gravy you have ever served. 7-lb. bag 10/3d., 7-lb. tin 10/10d.

• **GRANULATED GRAVY IMPROVER** gives rich colour and flavour, 7-lb. tin 9/-.

• **TABLE-CREAMS**—Deliciously different, light, fresh and wonderfully creamy. Fully sugar-sweetened, easy to make with 9 delicious flavours. 7-lb. tin 15/6d.

• **JELLY CRYSTALS**—Easy to make, really economical, fully sugar-sweetened with 8 fresh-tasting fruit flavours, 7-lb. tin 14/6d.

• **CUSTARD POWDER**—smoother... creamier... your customers will love its rich flavour. 7-lb. bag 6/2d., 7-lb. tin 7/2d.

• **COMPLETE CUSTARD MIX**—needs neither milk nor sugar. 7-lb. bag 8/3d.

• **CORN FLOUR**—7-lb. bag 5/9d., tin 6/9d.

• **BLANCHARGE POWDER**—7-lb. bag 6/7d., tin 7/7d.

• **PREPARED PEA FLOUR**—1-lb. bag 20/- per dozen.

• **CLEAR SOUP CONCENTRATE**—quart bottle 13/1/-, pint 7/-.

• **ASPIC JELLY POWDER**—in 2-lb. tin 6/9d. per lb., 7-lb. tin 6/6d. per lb.

• **SPONGE MIXTURE** for light, fluffy cakes. 7-lb. tin 8/6d.

SYMINGTON'S *Service to Caterers*

Visual Aids in London Schools

In January, 1949, the London County Council approved a £232,000 programme for visual aids in educational establishments other than infants' schools.

Sound film projectors have now been provided for use by all secondary schools and colleges. Evening institutes normally share projectors with the day schools they use, but instruments are supplied to institutes which occupy their own premises or which operate in schools without projectors. All junior schools (more than half the total number) wanting silent projectors have been issued with them.

Nearly all educational establishments except infants' schools now have strip projectors. 250-watt filmstrip projectors were supplied at first, but 500-watt machines are now supplied for general use. These can be used in daylight with a rear-projection screen, thus avoiding the expense of providing blackout. 750-watt machines are used in special cases, e.g., for large audiences at establishments for further education.

Episcopes are supplied to evening institutes and to secondary schools; junior schools can obtain an episcopes on the recommendation of an inspector. Micro-projectors are supplied for advanced scientific work.

Up to March 31st of this year the following equipment had been supplied:

143 cine projectors (sound)	@	£200 each	£28,600
411 cine projectors (silent)	"	£100 "	£41,100
1,169 filmstrip projectors	"	£25 "	£29,225
143 micro-projectors	"	£35 "	£5,005
125 episcopes	"	£80 "	£10,000
262 rear-projection screens	"	£20 "	£5,240

In addition, black-out curtains were provided as required; a school is entitled to have its hall and one classroom fitted with these.

In every school and institute where there is a cine projector at least one member of the staff must hold the Council's certificate of proficiency in operating and handling film projectors, or the certificate of the London Schools Film Society.

Libraries of films and filmstrips are maintained at the Council's School Equipment Division. The first catalogue of filmstrips available was issued in December, 1951, as a paper-covered pamphlet; a new edition, incorporating subsequent additions to the library, was issued in April, 1953. The film catalogue is a thick loose-leaf volume, and additions to it are constantly being made. The second supplement has now been issued to schools. A third edition is now in preparation. The film catalogue is divided into sixteen main sections, some of which are further divided—for example geography has four sub-sections, physical and mathematical, economic, transport and communications, and regional. There are about 832 titles of sound films and 304 of silent. Approximately 9,000 copies of films are in the library, of which 66 sound titles and 38 silent are in colour.

During 1954-55 the total number of borrowings by schools of cine films was 68,630, and this year's total is expected to be even higher. The average turnover is about 1,500 films per week. Schools with 500 pupils or fewer on the roll, may borrow three 10-minute films (or the equivalent) per week, and those with more than 500 are entitled to six. The new large secondary schools may borrow up to twenty-four films at a time, depending on the number of pupils.

Episcopes (slide lanterns) are not being supplied now. But pre-war issues are still used, chiefly in evening institutes and the library contains 110,000 episcopes slides.

The Council also maintains at the School Equipment Division a library of filmstrips (run on similar lines to the

film library) which contains at present 814 titles and 10,132 separate copies. Between April, 1954, and March, 1955, the number issued on loan was 34,165. Schools may borrow up to six filmstrips a week, except the large secondary schools, for which special arrangements are made.

Children's Film Centre to be Set Up

A conference convened by the United Nations Educational Scientific and Cultural Organization has agreed that an international centre for children's films should be founded. They have set up a provisional council and secretariat, which for convenience will operate from Paris. The final constitution and locale of the permanent centre is left for later determination.

The working party, which met in Edinburgh, last month, studied propositions made at international meetings at Locarno and Luxembourg, that such a centre should be set up to consider all matters concerning children and the cinema. Miss Mary Field, executive officer of the Children's Film Federation, but on this occasion representing the International Council of Women, acted as chairman.

After reviewing the recommendations made at Locarno and Luxembourg, the working party unanimously agreed that there was need for some permanent machinery for co-ordinating action in this field. A centre for this purpose, though receiving full moral support from Unesco, should be financially independent. Activities would include the exchange of information on everything to do with the production, distribution and exhibition of films made for or suitable for children and young people; compiling and publishing lists and catalogues of films, and results of research on the influence of films; and on the tastes of children.

The centre would regard as a vital function of its work the setting up of a national centre in every country, which would help to facilitate the free flow of suitable films throughout the world.

Those present at the meetings included members of the international associations of the film industry and of international organizations interested in the welfare of children and young people.

"Listen and Learn"

A Guide to some Serious Sound and Television Broadcasts.

The Autumn issue of "Listen and Learn," just published, offers a guide to the more important talks, discussions, plays and music to be broadcast during the coming quarter. Diagrams and sketches in this free eight-page leaflet serve to illustrate the notes about some of the more important series of talks.

One such series will deal with the Middle East and will include travellers' descriptions and evidence about such things as oil and its significance, social upheavals and external policies, and the conflicts of race and nationalism. In another series Dr. J. A. H. Waterhouse will describe something of what is known about Human Heredity. A dramatised brush-up-your-French series entitled "Entente Cordiale" will be followed next year by others on Italian and German.

The "Entente Cordiale" is a new series for students of French, and is broadcast at noon on Sundays and on Friday mornings. Each week a vocabulary will be published in the programme pages of *Radio Times* of some of the words and phrases to which attention is drawn in the current broadcast. The principal characters in the series are Richard Sterling and Françoise Leclerc who are two students who meet in Paris. Richard gets help from Françoise with his rather rusty French, and she gets taken out by him around Paris.

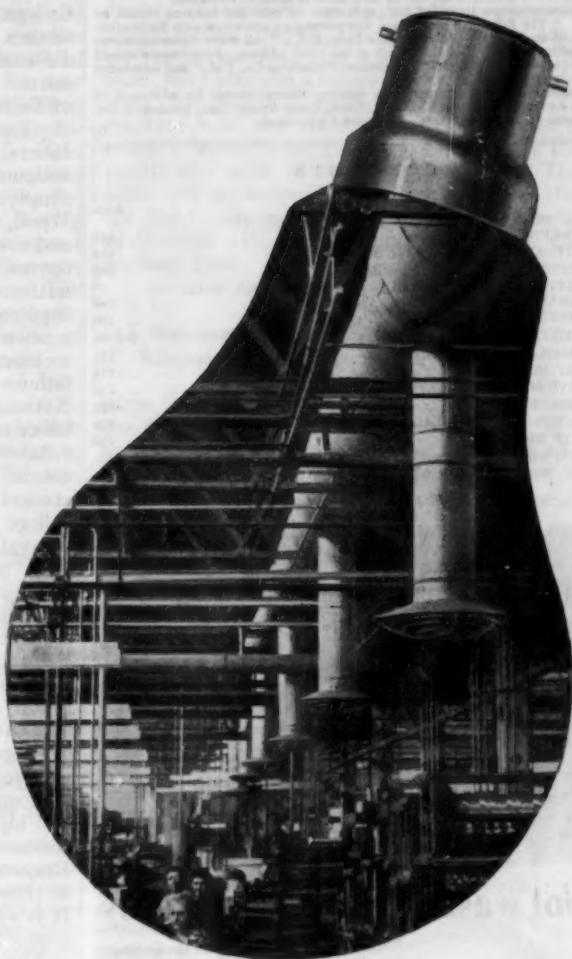
Nothing left to chance . . .

AIR PURIFICATION

In addition to normal air-conditioning, a vast Air Purification System makes doubly certain that the atmosphere throughout the Ediswan Lamp Factory is as clinically-clean and free of microscopic dust particles as human skill and ingenuity can contrive.

This immense plant consists of several Pumping Stations, each operated by 25 h.p. motors which deliver heat-treated, purified air via distributor ducts throughout the entire factory. Each Pumping Station circulates no less than 159,000 cubic feet (5½ tons) of air per minute! The temperature of the circulated air is precisely stabilised by thermostatic control.

This is another example of the strict control and technical care insisted upon at every stage in the manufacture of Royal "Ediswan" Lamps. Nothing is left to chance—careful testing and checking of every lamp ensures that each conforms to the highest standard of requirement.



BY APPOINTMENT
SUPPLIERS OF LIGHTING EQUIPMENT
TO THE ROYAL NAVY, ROYAL AIR FORCE
AND THE ROYAL CANADIAN MOUNTED POLICE
THE EDISON SWAN
ELECTRIC CO. LTD.

ROYAL "EDISWAN" LAMPS

The Edison Swan Electric Co. Ltd., 155 Charing Cross Road, London, W.C.2

Member of the A.E.I. Group of Companies

The
SCHOOL GOVERNMENT CHRONICLE
and
EDUCATION REVIEW

No. 3363

OCTOBER, 1955

THE SCHOOL GOVERNMENT CHRONICLE AND EDUCATION REVIEW is published on the 15th of each month, price 1/-, and may be obtained through any newsagent or bookseller, or by post direct from the publisher at 13/6 per annum, post free.

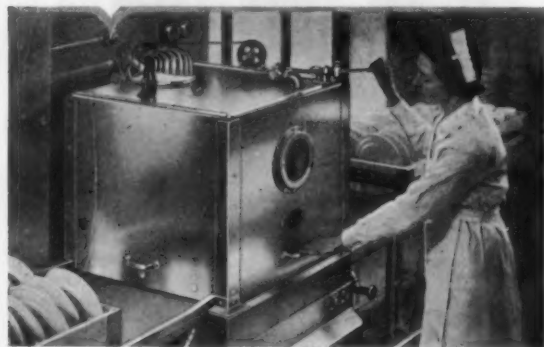
It is an independent journal attached to no Association or political body, and in no way restricted to the protection of special interests or to the advocacy of any policy which is not primarily for the advancement of national education.

All communications intended for publication on editorial matters should be addressed: "The Editor, THE SCHOOL GOVERNMENT CHRONICLE AND EDUCATION REVIEW, Cobham House, 24, Black Friars Lane, E.C.4." All other communications should be addressed to "The Manager," at the same address. Remittances should be made payable to "The School Government Publishing Co., Ltd.," and forwarded to the Manager.

Advertisements and correspondence relating thereto should be addressed to A. Darby's Advertising Service, Cobham House, Black Friars Lane, London, E.C.4. Telephone for all departments: City 6886-7 (two lines).

CONTENTS

	Page
NATIONAL ASSOCIATION OF DIVISIONAL EXECUTIVES' CONFERENCE	101
THE STATE AND INDEPENDENT SCHOOLS	104
THE SECONDARY TECHNICAL SCHOOL	106
SIR RONALD GOULD ON THREATS TO THE SCHOOL BUILDING PROGRAMME	108
EDUCATION AND POLITICS	108
PARLIAMENTARY SECRETARY ON TEACHER TRAINING	110
VISUAL AIDS IN LONDON SCHOOLS	112
MONTH BY MONTH	114
EXAMINATION AND EDUCATIONAL VALUES	118
CORRESPONDENCE	122
ART TEACHING IN GENERAL EDUCATION	124
FILM-STRIP REVIEWS	126
WORLD INCREASES EXPENDITURE ON EDUCATION	128
MINISTER OF EDUCATION RECEIVES MANCHESTER DEPUTATION	130



School washing up is made easy

*Clean -
without
a doubt!*



Many schools now handle all the washing up mechanically. The use of DAWSON DISHWASHING MACHINES effects great saving in time, labour costs and absence of breakages. Furthermore all crockery and cutlery washed by Dawson machines satisfies the standards of hygiene demanded today. Dawson Dishwashing machines are made for all size canteens, catering for up to 1,000 meals. Descriptive literature will be sent on request.

Dawson

"DELUGE" DISHWASHERS

DAWSON BROS. Ltd., Dept. S.G.C.
Roding Lane South, Woodford Green, Essex.

Month by Month

Inflated Syllabuses.

QUITE the most shrewd, challenging and often entertaining of addresses was that delivered to the annual conference of the National Institute of Adult Education by Manchester's former Director of Education, Mr. Norman Fisher, now Principal of the National Coal Board's Staff College. The main business of the conference was to discuss in its various aspects the report on *Liberal Education in a Technical Age* issued last May by a committee representative of the Institute, the Association of Technical Institutes and the Association of Principals of Technical Institutes. Mr. Fisher's subject was Liberal Education and Productivity, a rather forbidding assignment until translated by the speaker as more simply the Educational Needs of Industry. Sir Robert Wood, late Vice Chancellor of Southampton University and even better known for his long service at Whitehall, opened the Conference as Chairman of the Joint Committee. In his address he criticised the Universities and deplored the overloading of syllabuses. Mr. Fisher renewed the charge but directed it especially towards technical colleges. The figures he gave of passes and failures in the various National Certificate and Higher National Certificate examinations certainly supported his criticisms. Technical Colleges tended to inflate their syllabuses in order to raise the academic status of their courses and their colleges. Just as too many university students attempt honours courses, so too many technical college students attempt professional courses quite beyond their intellectual capacity and indeed also beyond their professional and industrial requirements. The courses themselves need revision unless they are forever to concern themselves with a very small minority of students. It is however, unfair to put all the blame on the universities and the colleges. Schoolmasters advise their pupils on the courses which they think they should follow at the university. Local education authorities too have some responsibility in the matter. All too often grants are made to students only on condition that they follow a course for an honours degree. The nature and content of national certificate courses, both ordinary and higher, are determined by the national institutions concerned in conjunction with the Ministry of Education. Responsibility for the "academic inflation of syllabuses of these courses must therefore rest with those bodies. It is symptomatic of their inflation that teachers have now come almost as a matter of course to assume and expect that the standard will be raised next year." That every year there will be alterations in the requirements of each subject that will make it harder and harder for good and deserving students to obtain any tangible reward for long years of hard work and meritorious study. The Ministry and the Institutes might surely consider now whether a halt might not be called in this direction—and the same is true of the requirements for the various degrees of membership of those institutes—and allow the standard to be stabilised. Meanwhile, as was recently pointed out, "B.A. (failed)" may be better than nothing attempted and nothing done. It is better to have sat and failed than never to have sat at all. Some credit must be given to the unsuccessful student

who industriously completes his course and some recognition of the manifest fact that he has not wasted his time.

Other Languages.

WE nearly wrote Foreign Languages, but refrained in time from so describing the ancient British tongue. The British Broadcasting Corporation deserves a few words of thanks for its new weekly series of brief lessons in French. Many people of all ages must have listened with both profit and enjoyment to the *En Voyage* series and hoped, when it ended, that the B.B.C. would not forever cease this popular but none the less educational effort. It is good to know that last year's series has now been published in book form—*En Voyage*, MacGibbon and Kee, Ltd., 10s. 6d. Better still is the commencement last month of a new series entitled *Entente Cordiale*. Last year's series was designed to help intending travellers to brush up their French. Now listeners can follow the adventures of their fellow countrymen in France. Young Richard Stirling is lucky enough to be able to spend some months studying architecture in Paris. There he meets a charming Parisian girl, Françoise Leclerc. The B.B.C. does the rest and does it well. These programmes can be of real value as supplementing the studies of Secondary Modern School pupils and of those who are working for examinations of the Royal Society of Arts. It is therefore very satisfactory to learn that there will be two other series next year on similar lines. An Italian programme will go out on Sundays from 1st January to 25th March and a German programme on Sundays

from 1st April to 24th June. It is in some ways unfortunate that the programmes should be timed for 12 noon on Sundays. Many people cannot get home from Church or Chapel by that time. Surely time could be found for this programme—it only lasts for ten minutes—when the listener would not have to choose between worship and education or recreation. The difficulty does not arise in the case of the new Welsh language lessons. A two years' course in Welsh for beginners began this month. There will be weekly repeated lessons until March. The lessons are on Monday evenings from 7-30 to 8-0 o'clock and the repeat programmes are at 10-30 on Sunday mornings. A special pamphlet with illustrations, full notes and a separate vocabulary can be bought from the B.B.C. Cardiff for ninepence. The programme is on the Welsh Home Service and this may create a difficulty for English people outside the Principality who wish to learn the language. This is an admirable adventure in adult education on the part of the B.B.C. It prompts one to suggest a similar course in German as being something for which there is a growing need.

Le Movement Bilanque.

ALL educationists will agree that the best results in the learning of a second language can only be achieved by starting as early as possible and by spending some time, if it can be managed, actually living with the people whose language one is learning. Both those points seem to be made by the promoters of what is variously known as *Le Movement Bilanque* and *Le Monde*



You need NO MAINS for modern school feeding facilities

★ 'CALOR' GAS GUARANTEES
THE LATEST APPLIANCES AND THE
BEST SERVICE IN BRITAIN!

RURAL schools need no longer be left behind their modern big-city counterparts. When it comes to cooking, heating and lighting for schools without gas mains, 'Calor' Gas offers the best fuel, together with an exclusive selection of the latest appliances and the best service. Over 1,400 trained 'Calor' dealers guarantee regular maintenance and deliveries throughout Britain.

COOKING. Modern 'no-mains' gas cookers have been tested and proved in the 'Calor' Gas Company's own research laboratories. The result is the latest, most efficient cooking equipment in Britain.

HEATING. 'Calor' Gas provides a new way of heating schools without gas mains. Overhead heaters give widespread warmth that is clean, safe, economical and healthy. And this radiant heat can be regulated or localised.

LIGHTING. Give children adequate light to work by. A whole new range of wall brackets, pendant lights and strip lights have been designed by 'Calor' Gas to give brighter light, more efficiently.

WE DELIVER ANYWHERE—EVERYWHERE

'CALOR' GAS

For full details write to: 'Calor' Gas ENGLAND: POLAND HOUSE, 161-167 OXFORD STREET, LONDON, W.1.
SCOTLAND, N. IRELAND & EIRE: 46-48 ST. ANDREW'S SQUARE, GLASGOW, C.1.



Bilanque. There has been recently much activity by those concerned with this movement, which seeks to work through the "twinning" of French and English towns. It has indeed been stated that already some fifty towns have agreed to such twinning. Enquiry of actual towns mentioned, however, generally show that nothing has yet been done beyond a lavish exchange of civic visits and hospitality. In many cases the towns have not done more than receive proposals. Three years have passed since the movement began and one would therefore expect to see something more definite than this. The Movement claims to be first and foremost an educational one. Its first aim, which can hardly be acceptable to all other countries, is said to be the acceptance of English or French as the compulsory second language in all countries. This would mean the teaching of French in England to a bi-lingual standard. This would be achieved by teaching French to English children "when they were quite young, say five or six years old and not teach it in a formal way, but rather as a by-product of other types of education." The twinning of towns would be accompanied by organised exchanges of school children and not merely visits to the towns concerned. The idea of teaching French in our infant and junior schools seems now to be very much in the background. The movement, which does not lack money, does however, still claim that its primary purpose is educational and its other aims secondary thereto. It is for this reason remarkable that generally speaking the Education Authorities for the English towns, their Education Officers and their teachers have been so conspicuously ignored in all the conversations, meetings and visits. There have been many excellent banquets, much bountiful hospitality and many long journeys by land, sea and air but no proper approach has in most cases been made to those at this end who on educational matters should be the first to be consulted. The methods and the publicity adopted have not, in fact, been good for the movement. Teachers have been antagonised by the way in which their present work has been ignored. Civic heads and various council officials have visited some of the remotest towns in Southern France, presumably at public expense until their French hosts took over, without ascertaining first what language teaching was going on in their own schools and what their own education committee, youth committee, governors and head teachers were doing already to organise and encourage educational travel abroad and the foreign exchange visits. It is not the English way to impose such things on the schools from above. If the towns concerned are now suddenly to interest themselves in these educational activities they might begin by assisting existing schemes and projects rather than by favouring only what may be done or attempted through *Le Monde Bilanque*. We would certainly suggest to the promoters that they should approach the Education Committees through their Chief Officers, if they wish to claim that theirs is an educational scheme. It is not too late for the proper and courteous procedure to be followed. Some good may, of course, come from the strange and unfortunate proceedings of this movement, if as a result the councils of the towns concerned become better acquainted with the work of their schools and their teachers and if they discover and support what is already being done in their own towns. Certainly if

there is to be any more expenditure from the rates on this movement it should be accompanied by equal financial help for all that the schools and youth exchanges are already doing, often without any civic assistance. It is not only the individual schools, either, that for a generation and more have been making effective links with other countries. There is the Central Bureau for Educational Visits and Exchanges which exists to carry out just this kind of work. The Bureau has what *Le Monde Bilanque* has not and that is many years of successful experience and achievement in this interesting but quite difficult kind of educational activity. The Bureau is conducted by a council properly representative of educational interests, including teachers and local education authorities. It is recognised by the Ministry of Education as the appropriate agency for such work. It is adequate evidence of the confidence of the Ministry of Education that it assists the good work of the Bureau by an annual grant.

* * * *

The Function of Administration. SIR ARTHUR BINNS can and always does speak fearlessly and freely—or he does not speak at all. His concluding words to the Annual Conference of the National Association of Divisional Executives were as typical as they were sane and sound. He believed that the function of educational administration to-day was to foster both the independence of the school and the communal spirit with sympathy and understanding. Administration should encourage and not regiment, preserve and not destroy. It should preserve the infinite and, one might add, typically English, variety of schools; allow governing bodies to do their job without tight administration from the centre, and give all possible freedom to the people who are doing the job. "Administration" he said, "should be as inconspicuous as possible."

The National Camps Corporation

The Camps owned by the National Camps Corporation are to be offered for sale to Local Education Authorities. The Corporation was set up under the Camps Act, 1939, with an advance from the Exchequer to build and run camps primarily for use by parties of school children for short-stay visits.

There are at present twenty-eight camps, situated in different parts of England and Wales, most of which are let to Local Education Authorities for a variety of educational purposes. The Minister of Education and the Board of Directors have now reviewed the existing arrangements and have decided that the camps should no longer be centrally administered by a national Corporation. It is hoped that Local Education Authorities will buy them, though it will be open to other organizations to make offers for them. To conduct these negotiations, the Minister has appointed Mr. A. Wilfred Sarson to be Receiver and Manager of the Corporation.

The first Chairman of the Corporation was the late Lord Portal of Laverstoke and the first Managing Director the late Sir Edward Howarth, formerly Deputy Secretary of the Board of Education. The present Chairman is Sir Samuel Gurney-Dixon.

Through the co-operation of the Birmingham Chamber of Commerce, the British Standards Institution has now opened a Sales Office in the headquarters of the Chamber at 95, New Street, Birmingham, 2.



"Please Sir..."

"Sir. The new heaters on the changing room walls, Sir."

"Yes, Jones?"

"They're physics aren't they sir? I mean the man who was putting them up said De La Rue heaters work by infra red — and infra red's physics, sir, isn't it?"

"Yes, Jones. Infra red, as you put it, is physics."

"Well, how do they work sir? I thought infra red was lamps footballers use to get better."

"Infra red, Jones, is radiant heat. The sun's rays are a good example. They travel at 186,000 miles per second through the ether, not warming the air, but bringing heat directly to shine on your murky face."

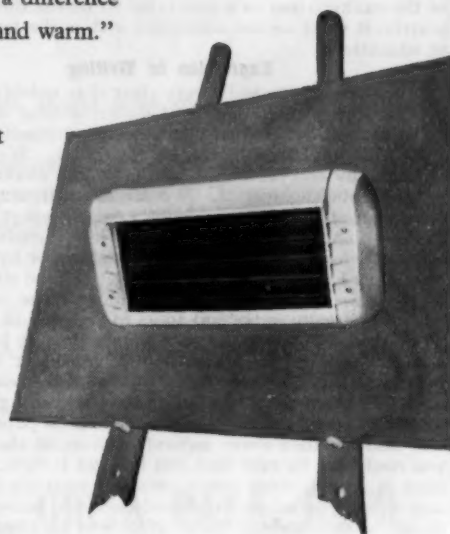
"But the De La Rue heaters don't shine like the sun, sir."

"No, Jones, the sun emits all kinds of rays including infra red and ultra violet, but De La Rue heaters emit only infra red — the warming rays. No energy is spent producing light rays. Is that clear?"

"I suppose so, sir. Anyway, there's a difference in the changing rooms now sir, it's nice and warm."

"So are we all, Jones. So are we all."

Budding Einsteins apart, infra red heating by De La Rue is the most efficient, most economical heating system a local authority can instal in chilly sheds, temporary classrooms, corridors and other draughty places. They beam a steady warmth down on to people and things from a height of about eight feet — and leave the draughts to their own devices. De La Rue gas-fired infra red heaters are cheap to instal and, because they have no lengthy 'warming up' period, they are cheap to run too! For chapter and verse write to Thomas De La Rue & Co. Ltd., (Gas Division Dept SH6) Imperial House, 84/86 Regent Street, London W.1.



keep people warm

Examinations and Educational Values

BY SIR CHARLES MORRIS, M.A., LL.D., D.LITT.

At the 116th Annual Meeting of the Union of Lancashire and Cheshire Institutes, Sir Charles Morris, Vice-Chancellor, University of Leeds, gave what he termed "some reflections about examinations as they strike a teacher who seeks to look back on long years of teaching and use his experience to try to keep himself straight in his own mind—or perhaps to put himself straight in his own mind—about the fundamentals of education."

"It has been my fortune," said Sir Charles, "—and I make no complaint about it—to spend my teaching life almost exclusively with extremely able pupils. Most of these young people would of course have got along very well, if given good facilities for study and an atmosphere which encouraged it, without a teacher at all: or rather—and this is perhaps the truer way of putting it—they were entirely capable of using the teacher as part of the facilities, perhaps one of the most useful parts of the facilities if properly used. But this does not of course prevent the teacher from being in a good position to study the educational process and to gain some insight into the fundamentals of education and of good teaching. Though I am now, I suppose, a practical man, I am still sufficient of a philosopher to believe that fundamental principles apply, not just here and there, but everywhere and always."

"One's first thought about examinations is that they are tests; and tests of course have a very considerable value for planning future action both in the course of the educational process and at the end of it. They are of value not only to the teacher and the employer, to the administrator and the statesman, but also to the individual subject himself who is submitted to the test. He wants to be able to judge himself, just as those others for their various purposes want to be able to judge him or the school or college which educated him. But this recognition of the examination as a test is by no means the end of the matter, if what we are concerned with is the fundamentals of education."

Expression in Writing

"It seems to me to be very clear that nobody can carry his learning to any degree of understanding in any field of study without frequently expressing himself in writing. This is a fundamental law of the mind. We all of us, individually and personally, owing to the weakness of our natures rebel against it. We all like our armchairs and hate to sit at the table and make a painful effort if it can be avoided; and so we all try to convince ourselves that we can really learn by reading or by listening, or by talking, or nowadays I suppose just by looking. But we all of us have to recognise again, each time that we come to a matter where it is really important to us to understand, and where we want to be sure in our own minds that we have 'got it straight' or 'got it right,' that we must put it down on paper. I suppose most of us learned this great truth for ourselves when we were quite young and did geometry at school. Unless you put the proof down on paper for yourself, and included every individual stage of the reasoning, you could not be sure that you had got it right. Similarly, even in a field which you have spent your life in studying and where you ought in all conscience to know your way about, when somebody puts before you an alleged proof of some new proposition, you say 'I should like to see it on paper.'"

"Everybody who has to learn something new, from the youngest to the oldest among us, tries to dodge the uneluctable necessity of this writing. But it is, or at least it

should be, part of the essential discipline of schools and colleges to see that schoolchildren and students are unable to escape the unpleasant in this matter, and unable to mislead themselves into thinking that they have made new knowledge and new understanding 'a part of their own minds' by merely reading, or listening, or talking, or looking, and without writing."

"It would be wrong however to think that these other activities have no part to play in education. They have a tremendous part. It is essential in any study for him who wishes to learn to be brought up against facts and against ideas; and reading, listening and looking have to take the main strain so far as this element in education is concerned. Then when it comes to putting things in order in the mind, in any difficult matter most people would never face the ordeal of getting things straight on paper unless they could do some talking and discussing first. Discussion is in general less rigorous and exacting and it also provides human support and comfort in the mental struggle. It is very suitable, and for most of us quite necessary, for 'trying things out.' But in education—whether self-education, or school and college education—all these things are done for the sake of acquiring understanding. If this final stage of real understanding does not supervene, all this preliminary labour is wasted. We have done all the work, or nearly all the work, and not taken the profit."

Acquiring Understanding

"Now in this matter of acquiring understanding, and of training the individual mind to put itself in the way of acquiring understanding and to be able to distinguish in its own experience between real understanding and the lack of it—in all this, examinations have, I believe, a vital part to play. Other kinds of written work, the writing up of notes and the day-to-day or week-to-week exercise or essay, have of course to take the main strain; and it is quite right that they should do so. To nearly all pupils—as opposed to mature men and women who are studying or creating their own impulse and their own self-discipline—written work in practice loses nearly all its value unless somebody else takes an interest in it and goes through it with them with sympathy. Even mature and experienced persons, when they have written something, generally like somebody to read it and take it seriously. In the daily course of formal education all this is obviously best done away from the rooms and atmospheres of examinations. Besides, when a piece of writing represents a real mental struggle, a real minor agony, as it should, the hero of the action should not be pressed for time or worried by other inconveniences; he must be able to set himself to it in his own best way. Nearly all school-children and students, if they cannot learn to do their writing in their own best way, will not in any proper sense do it at all; that is to say, they will shirk this final stage of bringing themselves to understanding."

Examinations have Important Part to Play

"Even so, I still think that examinations have a most important part to play. Let me take a case from my own experience. In the two university courses for which I taught for nearly twenty years, the student could, after his first term or two terms, have a clear run at his studies for more than two years without being impeded by any examination which mattered or counted in any way to affect his future either in the university or afterwards. With his tutor he had therefore very great freedom to organise his

A new Symbol of Quality



Responsible laboratory workers in many countries recognise a B.D.H. label as a symbol of quality. To strengthen this confidence still further, the labels of up to 1,500 items in the range of B.D.H. laboratory reagents will in future carry details of minimum assay and of the maximum limits allowed of the more significant impurities. New labels, grey-green in colour, have been designed to accommodate this information.

Reagents carrying these specifications will gradually replace the corresponding materials under existing labels and it is hoped that the new development will be cordially welcomed by users of B.D.H. chemicals.

B.D.H. LABORATORY CHEMICALS

THE BRITISH DRUG HOUSES LTD.
B.D.H. LABORATORY CHEMICALS GROUP
POOLE DORSET

L.CIS/ISS1b

CITIZEN HOUSE LIMITED

THEATRICAL COSTUMIERS

The Citizen House wardrobe comprises hundreds of costumes, of all Periods : Greek, Roman, Medieval, Elizabethan, Stuart, Georgian, Victorian, Peasant, Fantastic, etc.

* * *

For the Hire of these costumes, whether for plays, pageants, light opera or pantomime, Citizen House offer a prompt and reliable service at most reasonable charges.

* * *

Wigs can also be supplied with the costumes at extra cost.

* * *

Citizen House dress over 200 school productions annually, apart from amateur productions, and it is advisable to place an order well in advance so that costumes may be selected and reserved for the dates required

* * *

An Advisory Bureau is open to all clients who may have problems relating to production, costume, make-up, etc.

21, GREEN PARK; BATH

Telephone :
Bath 5157

Telegrams :
Period Bath

work over a very long period in a way to suit his interests and his capacities; during all this time he would feel free, if he had at all the right temperament, to bury himself in his subject for its own sake; and for very many months he need not feel his plans hampered or distorted by examination considerations—indeed the shadow of the eventual examination could be a comparatively vague and distant one, and he could live and work, except for this vague overshadowing, as a genuine and disinterested student of history, or philosophy, or economics, or what you will. It was thus possible for his friends or his tutor to observe what happened to him, and what he made of himself and his powers in his chosen study under conditions of great freedom—conditions which are, I think, nowadays generally thought of by the progressive school of educators as being broadly the ideal to which as far as possible all educative work should approximate. Here in fact was a magnificent opportunity for freedom of study to do all that it was capable of doing; and of course it was capable of doing wonders.

"But then, at last, after this very long period of remarkable freedom, the student had to get his wits together for an examination—what the Americans call a 'comprehensive' examination, which would last a week and which he at that time probably felt would make or mar his whole career, and indeed his whole life. In my experience students began to do this about four to five months before the date of their examination, having had, that is to say, about two years, or nearly two years, of free study. In this part of his course, the young man (or young woman) became quite a different person in relation to his intellectual work. His whole approach to his studies, indeed the very aim of his efforts, became quite changed. He realised that the time had come—and of course his tutor would tell him so—when he must no longer, for the time being, aim to cover new ground or acquire new knowledge; he must now prepare himself to be able to master and use to the best advantage what he had already got.

"Under these circumstances it was quite possible for the observer to see quite clearly what was the educational effect of the examination-free period and what was the educational effect upon the student of the examination itself and of the necessity to prepare himself for it. It must be remembered that in the university courses of which I am speaking, nearly all the students were ambitious young men or young women who were not aiming just to pass the examination, but desired almost passionately to do as well as they possibly could, and indeed to get a 'first' if it could possibly be done. They therefore applied themselves with immense energy to preparing themselves for this very severe week of testing, their final 'schools'.

"Now it is obvious that the two years or so of freedom of study was capable of being of immense educational value. To the young man or woman with no capacity for any real interest in the strenuous intellectual life it could of course, at any rate from the academic point of view, be sheer waste. But to him who could, with the facilities and in the atmosphere of university life, throw himself into academic work in his own chosen field, the opportunity to bring out and develop his intellectual powers was of quite incalculable value. It gave him freedom of manoeuvre. Even in the intellectual life you cannot make bricks without straw. Facts are not everything, but you must know what the facts are. Techniques are not everything, but in any field of study you must have at your disposal a certain number of basic techniques. Knowledge of a multitude of facts and the possession of a multiplicity of techniques may still leave you the 'wisest fool in Christendom'—may leave you indeed quite useless even for any academic or technical enterprise; but you cannot do without the knowledge and the skills. These two years of freedom gave the student plenty of opportunity to get to work in his own way; to indulge in wide reading and try out a lot of experiments in working things out for himself. And he can follow up each clue or

each line of enquiry, with the degree of thoroughness and completeness that his interest and his purpose will bear. No one can doubt that this way of spending his time can give the student one quite vital part of his full education.

The Examinations

"But what about the examination? Are the weeks spent on preparing for it, and the very exacting strain of undergoing it, a sheer educational waste—necessary perhaps for some other purposes, but from the educational angle of no value at all? Very far from it, in my view. And perhaps I may say here, that many students have said to me, some of them at the end of their university life and some in later years, 'I never really had any understanding of what the whole subject was all about until those last weeks when I began to prepare myself for the actual examination.' Like the Irishman who wanted to start at the third lesson, they could have wished that this part of their course could have come at the beginning instead of the end, so as to give point to the rest of their time of study. This of course would be quite impossible; or in so far as it was possible, it would be suitable to technical training but not to education. But it is possible to see what they meant.

"Preparing yourself for an examination which really is an examination has much in common with any other form of preparing yourself for doing yourself credit on a great or exacting occasion—such as for instance an important athletic event, or the performance of a concerto, or making an important speech in the House. Everything depends on what you can get out of yourself at the critical moment and within the time at your disposal. It is of little use to you to be capable of doing better on some other occasion; indeed it would be a slight disgrace to you, and show a fault in your self-control and your self-preparation, not to be at your best at the right time.

"In the case of the examinations of which I was speaking, the important thing was to have all the knowledge you had gained in the past two years utterly at your finger-tips, entirely available for use. Any knowledge that you did not have ready to be used might for the present important purpose as well not be there. Moreover the use of your knowledge had to be a controlled use, quickly and efficiently marshalled. This of course needed some gifts on your part; but it also needed some training of those gifts, and it meant that the knowledge you were using had to be of a certain kind. Your mind must have reached a stage in relation to it when it is not only entertained, and is perhaps capable of being remembered, but it must be truly understood. All the items must fit into place in relation to one another; they must be in order before your mind and make some kind of a whole. You must not write like the child brought up in a learned family, capable of stringing long words together in a way which seems natural and plausible, but quite unaware of what the words or the sentence means if—as sometimes disconcertingly happens—it means anything at all.

"Yet for the teacher who is really concerned for educating his pupil, this is the critical point. Here is the most critical step which the pupil must be led to take. After having spent months and months in acquiring facts and techniques at a stiff pace, he must turn to reducing them all to order and getting them entirely under control, and this requires a real labour; as I said before it could properly be called a small mental agony. All the work that is done in studying facts and ideas is for the sake of enabling one to complete this crowning operation. You cannot do anything with your knowledge, whether academic or practical, until you have achieved it. Yet as we know, a great many students do all the work of study and yet never learn to bring their work to this completion. They have laboured long and taken no real profit.

Examinations Necessary

"It is of course the aim of the teacher to prevent this from happening. It is indeed the most difficult part of his

Legg

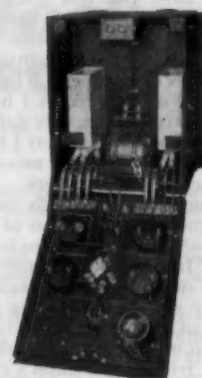
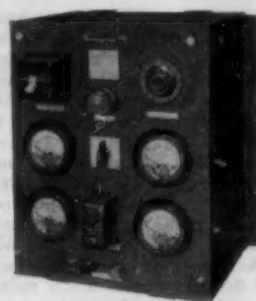
LOW-VOLTAGE POWER UNIT

This low-voltage power unit has been designed to meet the needs of science teaching in secondary schools and provides an efficient source of low voltage A.C./D.C. power for experimental purposes in science laboratories. The front panel is hinged to expose the wiring and component parts for teaching, and the interlocking isolation switch renders the unit 'dead' and quite safe to handle.

The unit has been produced to the requirements of the London County Council Education Committee and is already in use in a large number of schools throughout the country

A full technical specification
will be sent on request

Legg INDUSTRIES LTD - WILLIAMSON ST - WOLVERHAMPTON

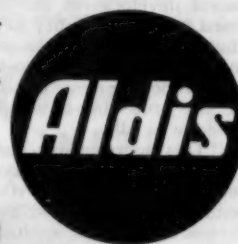


The name Aldis is the registered trade mark (No. 696376) of Aldis Bros., Ltd., Birmingham

THE WORLD'S FINEST
PROJECTORS

Let the
picture

tell the story



ALDIS 500 The most popular Aldis—a blower-cooled projector ideal for colour transparencies. Its tremendously increased illumination and extra-cool projection have been made possible by the latest mains voltage Biplane projector lamp. Fitted with the new Aldis 4-in. f/2.8 Anastigmat extra hard-coated lens for maximum definition over the whole picture area. Complete with 2-in. x 2-in. Slide Carrier.

500w. Lamp (all voltages) £1.17.0
Film carrier (Fits all models) £3.10.0

ONLY £25.0.0

ALDIS 300 A 300-watt projector with greater screen brilliance and picture detail than any comparable model. Convection cooling enables films or slides to be left in position for long periods when required. Lamp, condensers, and heat filters easily removed for cleaning. Size 13½-in. x 7-in. x 8½-in., weight approximately 8-lb. Complete with 2-in. x 2-in. Slide Carrier.

300w. Lamp (all voltages) £1.0.6

ONLY £19.19.0

OBTAINABLE FROM PHOTOGRAPHIC DEALERS
AND SCHOOL AND LABORATORY
FURNISHERS



NEVILLE BROWN & COMPANY LIMITED • LONDON • W.1

responsibility. I do not know myself of anything which is so powerful an influence in the right direction as an examination. Even if examinations did not exist for any other purpose, it would be necessary to invent them for the sake of the growth of the pupil himself, wherever high education is aimed at. My ex-pupils to whom I referred before were perfectly right; they began to see and to understand in those last weeks, when they were struggling to put their knowledge in order and get it under control, things which they never saw or understood before—and which most of them, if the truth be told, would never have brought themselves to see or understand in any other circumstances. And of course, also in those few weeks, they became quite different people, much more intellectually powerful; in a word, more educated.

"Now you will ask, what is the point of all this discussion on the education of university undergraduates on this day and in this place? To which I should like to answer, in the first place the interest of the Union have never been narrow or confined. They are, I know, as wide as education itself; and the point I have been trying to make concerns in my view the very fundamentals of education. And in the second place, what I have been trying to say, if it is true, applies in its due measure to all examinations and all education everywhere. It may be clearest and of most obvious importance in the highest kinds of examination and in the highest reaches of education. But it is not without significant implications in any kind of teaching and learning.

"In my view we have in recent years been too much on the defensive about examinations. In their own nature they are far from being the enemies of the teacher and of sound education which one might well suppose them to be from much that one reads and hears. It is, I think, simply not true that a pupil's chances of being soundly educated are greater and greater in proportion as he is liberated from the necessity of submitting himself to be examined; just as it is simply not true that a child's chances of strong moral development are increased in proportion as he is freed from the liability to be punished. It is true of course that examinations, like punishments, can be overdone or misused. They can also be ill-timed. But in themselves, and properly planned and used, they are an essential part of any true and thorough education, and they need no apology at all.

"This doctrine imposes upon us, when we examine it, great responsibilities and obligations. It is not our duty to see that, always and without exception, examinations are reduced to the smallest number possible, or to assume that they are, from the teaching point of view, nothing but an evil, getting in the way, and doing nothing but getting in the way, of the educational process. Rather we ought to try and see, that such examinations as are necessary for external and other than educational purposes, conform to educational principles and are integrated into the educational pattern. We have all of us in our youth learned a great deal from our attempts to make ourselves cope with examinations, and those of us who have been fortunate enough to have extremely good teachers have been greatly helped by those teachers to do so; and what we have learned in this way I doubt if we should have learned, within the educational process of school and college, in any other way. We might or might not have learned them, with greater pain and at a greater cost, in the later experiences of life. Of one thing I am sure; if we had been left to learn them in later life, we should with one voice have complained of the remissness of our teachers and of the shortcomings of our schooling.

"There are of course many problems left. Externally imposed examinations are without doubt necessary for various external and strictly non-educational purposes. But we should not assume that even the most unpromising external examination is educationally a dead loss, and nothing but a nuisance. The difficulties to be overcome are naturally different in different cases; but I am sure it is

quite possible in all circumstances to plan examinations in such a way that while giving all the information required for external reasons, while serving all the purposes of the employer, the administrator or the parent, they can still fit in well with the requirements of good teaching and be a valuable part in a thoroughly sound educational scheme.

"No doubt such a high aim sets before us a very exacting task. But in the world of the things that matter everything which is good is difficult. In particular, it would be necessary to have—as a few schools and colleges have—enough teachers to enable them to give time and energy to caring for individual needs. But that is necessary to good education anyway."

CORRESPONDENCE

The Language Problem at Overseas and International Conferences

To The Editor, THE SCHOOL GOVERNMENT CHRONICLE.

SIR,—In the most interesting article under this title in your September issue I was rather surprised to find the following:

"It is time that this burning question was discussed and settled either for a stated period or once and for all. The language, once decided, would be introduced to all children at an early age . . . The time is ripe for such an experiment, which will require worldwide sponsorship if it is to achieve that measure of success which is so vital for the maintenance of peace through good understanding."

Your readers may be assured that the burning question has already been settled once and for all. English is now used either as a first or second language by more than half the literate population of the world. (Unesco figures, but we can easily work them out for ourselves.) Dr. Holmstrom, a Unesco official, has estimated that about half the world's scientific papers are now written in English. (*The Times*, 23.9.55; p. 4). The majority of secondary schools in the world are teaching English.

The British Council and the United States Information Agency are doing their best with limited resources to organize the training of teachers of English as a foreign language all over the world. At present, perhaps, they are making the mistake (from the international-language point of view) of coupling instruction in the English or American way of life with the teaching of the English language. That is not what the world wants or needs. The demand for "English without England" is spreading—an international English free from "1066 and All That," suitable as a medium of communication between Burmese and Japanese, or Turkey and Pakistan, as the language of science and commerce and broadcasting. Such English is already used in leading articles dealing with economics and foreign as distinct from home politics; it is as neutral a language as diplomatic French, very different from, say, a fifth leader in *The Times*, which is so rich in English allusion and association that a foreigner comprehends very little of it. A reviewer in *The Sunday Times* (25.9.55) p.4 praised an American thriller for being written in "what might be called 'international' English" and thus gaining in effectiveness. Text-books of English without any particular background are already in use in various countries.

Five hundred million people—and they are of much greater importance to the world at present than the peasant masses of Russia, China, or Africa—are using English. Their children and the children of others, are learning English in schools. Verily the time for discussion about choice of an international language is over and gone.

Yours faithfully,

Norwich.

E. V. GATENBY.

★ ★ ★ ★

**it's cheaper to
buy the best—
in the long run**

'There is hardly anything in this world that some man can not make a little worse and sell a little cheaper, and people who think of price alone are this man's lawful prey'.

John Ruskin.

Bedford & Britannia

white and coloured chalks

Finart Crayons

the finest in the world


Freart Crayons

a larger crayon for the smaller child

Iris pastels

...are undoubtedly the best


wise teachers always insist on COSMIC



Available through your educational supplier

In case of difficulty write to the makers:

The COSMIC Crayon Co. Ltd.
Dept: sgc 116-126 Cannon St. London, E.C.4
MANsion House 7264



**File
Your
Records
in**

Amselock Cabinets

The filing system designed to fill a growing need

Amselock cabinets are made in heavy-gauge steel and can be interlocked by assembly frames to form rigid assemblies of any required size and shape.

In addition to standard-size cabinets, there are specially designed models available for National Health Records, as follows :—

School Medical Records in Envelopes (Form I2M)...Model 911
School Dental Records (Form I1M).....Model 810
N.H.S. Medical Records (Forms EC 5, 6, 7, 8).....Model 57
N.H.S. Dental Records (Forms EC 25).....Model 6H10

Illustrated below are model 911 cabinets on a stand 18" high. Why not write for full details of our complete range of cabinets and equipment?

Amselock FILING CABINETS & EQUIPMENT



Amselock



AMERSON LTD.
Magnoid Works,
Albert Road, St. Philips,
Bristol 2. Tel. Bristol 78054

Art Teaching in General Education

An International Survey

Sixty-five countries—from Afghanistan to Yugoslavia—have contributed to the "Teaching of Art in Primary and Secondary Schools," published for Unesco and the International Bureau of Education by H.M.S.O. (11s. 6d.)

The main aim of this comparative survey is to determine the importance given to visual arts in general education. In an introduction, the International Bureau says:

"Practically throughout the world changes are taking place in the approach to art teaching, at a time when the obvious benefits of technological advance are showing themselves to be possessed also of a power for evil. Through an education in which art has its due place, individuals can gain the strength to overcome the threatened loss to their humanity."

The survey, which seeks to present the facts and compare them, but not to pass judgment on the values involved, is based on replies from sixty-five countries to questions dealing with the place of art in the curriculum, the aims assigned to art teaching, syllabuses, teaching methods and materials, the status and training of teachers, etc.

All the countries taking part gave some indication of their views on the purpose of art teaching in schools. For primary children the formative element was universally stressed; emphasis was laid on the importance of art in developing such faculties as imagination, observation and creative power, and as, according to the reply from England and Wales, "part and parcel of the whole business of promoting a child's physical and spiritual growth by the right blend of activities." In New Zealand, the aim was "the encouragement of a fine balance of intellect and emotion, of intuition and critical awareness."

Aesthetic education is given as an aim by more than 75 per cent. of the countries. In secondary schools, this term covers a very wide field. In the German Federal Republic, for instance, pupils must endeavour to depict and understand the modern aesthetic tendencies in industrial work and crafts; in Finland, analysis of works of art is considered a means of helping pupils to understand the evolution of human thought.

Some ten countries give art a place in social education. Bulgaria, for example, aims at a knowledge of the artistic achievements of socialism and considers that "art contributes, like all other subjects in the curriculum, to the integral development of personality and to the training of future citizens of a democratic state."

Some countries mention art as a means of teaching appreciation of national culture. In the Punjab, for instance, children are led to an appreciation of the artistic heritage of India. In Greece, the education authorities "regard art education, in fact, as a precious heritage of the Greek people."

A great many countries express the view that the teaching of drawing and similar activities represents an effective means for the teaching of all subjects. In England and Wales, for instance, "the teacher will make use of it as a starting point and means to education—to help children to read and write, to measure and to count. Handwriting, for example, is a primary form of art." In the primary schools of Saudi Arabia, it is through handwriting that art is taught. "It takes the place of drawing."

About a third of the countries mention some practical aim in art education. In the rural schools of Colombia, for instance, where art is included in "manual, domestic and agricultural activities," girls learn to model household utensils from local clay and boys to handle the materials used in the local industries.

In some ten countries, there is reference to art teaching as helping the teacher to find out what the child is thinking and feeling. Italy's art syllabus says: "From a very early age, children show a marked inclination to draw, scribbling on walls, etc., . . . Through this imperious need . . . children reveal certain aspects of their temperament and so facilitate the teacher's task of choosing the most suitable ways of educating them."

Remedial Classes for Backward Children

The L.C.C. has decided, as an experiment, to establish twenty remedial classes for backward children. These classes are intended for primary school children of average ability whose backwardness is particularly recalcitrant and who show no signs of improvement under ordinary school conditions. They are not intended for children who are very dull but for those whose backwardness is due mainly to causes other than lack of innate intelligence.

The classes will be situated in various parts of London—some in each education administrative division and they will be conducted on similar lines to the special classes which the Council runs for maladjusted children. It is hoped to open some of the classes during the next few months. They will cater for primary school children between the ages of 8 and 11, and attendance will be part-time. There will be 12-15 children in each group which will be in charge of one specially selected teacher.

The children will be selected by headmasters and headmistresses, educational psychologists and district inspectors and each child in attendance will be given a special medical examination as a check on factors in the child's physical condition which may have a bearing on his backwardness.

Sir Leigh Ashton Retires

The Ministry of Education announce the retirement on health grounds of Sir Leigh Ashton, F.S.A., from the post of Director and Secretary of the Victoria and Albert Museum, which took effect on the 20th of this month. Sir Leigh Ashton joined the Museum staff in 1922, after serving in World War I, and developed a special interest and reputation in the field of oriental art. Between the wars he was associated with the series of Exhibitions of foreign art held at the Royal Academy and in particular he was invited to arrange the Exhibition of Chinese Art held there in 1935. In World War II he was first a Director at the Ministry of Information and, later, Counsellor in charge of Information Services at the British Embassy in Turkey. In 1945 Sir Leigh succeeded Sir Eric Maclagan as Director of the Museum. At that time the greater part of the Collections had not been brought back from their war-time dispersal, and his first task was to plan the full re-opening of the Museum. This he combined with a complete reorganization which took several years to achieve.

Mr. R. E. Presswood, Director of Education told the Cardiff Education Committee that 80 per cent. of the children in the city's primary schools are now learning Welsh. In 1952 80 to 85 per cent. of the children neither spoke nor understood Welsh.

Schools are being asked to take special steps to celebrate the 10th anniversary of United Nations Day on the 24th of this month. In a circular to local education authorities, details were given of the various organizations of which the United Kingdom is a member, together with details of the pamphlets and other material dealing with these organizations which are available to teachers.

HALLS SCHOOL ROOMS CANTEENS etc.



We offer permanent buildings of standard types at the most economical price, constructed of "portable" concrete panels, these buildings are erected on site complete including foundations. Our patented method of construction ensures the maximum saving in maintenance costs. Prices are unquestionably the lowest available. We can erect these buildings to your specific requirements or can supply materials only if desired.

Write for folder SC/GV/CL for full details

HARRISON SMITH BUILDINGS LTD.
471, LICHFIELD ROAD, ASTON, BIRMINGHAM, 6



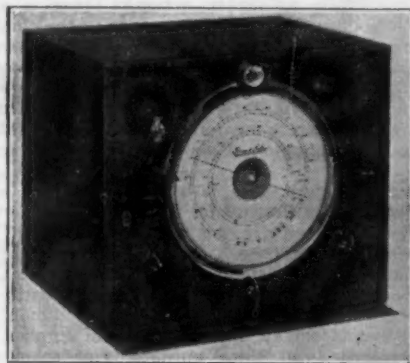
LARGE TYPE HYMN and SONG SHEETS (26-in. x 40-ins.)

A selection of over 330 Hymns and 30 Songs, printed on strong sheets in large clear type.

- **IMPROVED SINGING** follows automatically, with heads up and eyes to the front!
- **WIDE CHOICE.** The range of hymns is not limited to any one hymn book, and is kept up to date to include those used in the B.B.C. Religious Service Broadcasts to Schools.
- **CONVENIENCE.** For Morning Assembly the sets are effective; but sheets, particularly songs, are often used separately in classrooms, and for sing-songs and concerts.
- **LOW COST.** The initial outlay for a set of 50 sheets is 92s. 6d. only, and these should give many years of service. Further sheets can be added as required at only 1s. 5d. each.

Specimen sheet, index of first lines, and price list will be sent on request.

JOHN WRIGHT & SONS LTD., BRISTOL, 4



EDUCATIONAL RADIO

RECORD PLAYING EQUIPMENT

	£	s.	d.
R.3 Portable Record Player with 3-speed motor.....	20	10	0
Plus Purchase Tax	7	3	0
R.6 Portable Record Player with 3-speed motor	25	1	6
Plus Purchase Tax	8	15	0
Standard Record Playing Desk	12	10	0
Plus Purchase Tax	4	7	3

The **SCH/SPECIAL SIX EQUIPMENT**, illustrated, comprising a Receiver and Auditorium Speaker on separate baffle, price £23 5s. 0d., plus £3 11s. 6d. purchase tax, has proved ideal for use in schools of all sizes, throughout the United Kingdom. We are always pleased to offer advice to Educational Authorities regarding suitable installations, etc.

We have received a letter from a Maintenance Engineer referring to our Schools' equipment and his words were:

"This stands up to our Cornish saline humidity and likes work (one we maintain was inadvertently left on for the whole duration of the Summer holidays without any measurable deterioration of performance) and fully complies with the B.B.C. recommendations for Schools!"

Manufacturers of all A-Z Products (A-Z Regd. Trade Mark)

SOUND SALES LIMITED

Works and Acoustic Laboratories

WEST STREET, FARNHAM, SURREY, ENGLAND

Tel.: FARNHAM 6461 (3 lines)

Grams: "SOUNSENSE" FARNHAM

FILM STRIP REVIEWS

COMMON GROUND, LIMITED

CGA 645—Introduction to Volume.

The author has carefully guarded against the possibility of the child thinking of volume as three linear measurements multiplied together. The first 14 frames introduce the idea that volume is content or space enclosed and may be measured in cubes. The simple but interesting diagrams hold attention from the start and the steps are slow enough to enable a thorough understanding of the concept. The pictures encourage the child to reason for himself so that the final formula is arrived at in terms of the number of cubes. The cubic foot and yard are introduced, and practical work in the form of constructed cubic measures to find the volume of liquids or heaps of sand. For the upper juniors wishing to take the subject a step further the method of finding the volume of irregular solids by displacement has been included. A thoroughly sound strip which should do much to assist both teacher and scholar. 39 frames.

CGA 669—Linen.

A further addition to the Primary Geography series. Some children are bound to ask, "What is the Flax flower like?" A close-up picture of the plant would have been appreciated by teachers and scholars alike. A map shows the countries where most flax is grown, indicating the chief areas of cultivation for fibre and for the production of seed. Treatment of the flax after pulling is well dealt with and the many operations in the factory are well explained.

The wide variety of uses from rough sacking to the finest linen completes a very satisfactory survey of the subject. 36 frames.

CGA 670—Farmers of Africa.

This is really three strips in one, the only link being that all take place in Africa; and the strip as a whole will show the scholars how diverse Africa can be. Three maps point out respectively locations of the cotton growers of the Nile Valley, the palm oil gatherers of West Africa and the fruit growers of South Africa. The teacher will have a chance to discuss the differing climate of each locality. With 13 frames to each section the subject is in quite sufficient detail for the primary scholar and the clear photographs are sufficiently varied to maintain interest throughout.

CGA 670—The United States Rockies and the Arid West.

An addition to the Regional Geography of the World series, giving a fine survey of an immense region of great contrasts in landscape; this is well brought out in the introductory frames with pictures as delightful as any in the fine Physical Geography series; the canyon, the geyser, the crater lake. There are sections on Indian Country and Ranching Country, but of special interest is the concluding section on modern development. This includes a useful map on Irrigation in western U.S.A.; in fact the theme here is that water and electricity are the solution to most of the problems of the arid zone—the pictures indicate that the problems are being tackled with skill, resolution and vitality. 36 frames.

NATIONAL FILM BOARD OF CANADA (Distributed by UNICORN HEAD)

C. 120—The Frog.

The frog dealt with is the Canadian Bull-frog, but as the growth and development of frogs is essentially the same, the colourful illustrations will serve equally well for our own species. 14 frames indicate the various stages of transformation. A good point is the inclusion of illustrations of the frog's prehensile tongue in action. There is some attempt to introduce the balance of nature to the children by including some of the frog's enemies such as water beetle larvae in the early stages and the pike, heron and snake for adults. Three other Canadian frogs are figured. The age group is given as 10 plus but the pictures here are simple enough to interest any junior scholar, particularly as the sevens and eights are as good fishers for tadpoles as their elder brothers.

C. 122—How Animals Prepare for Winter.

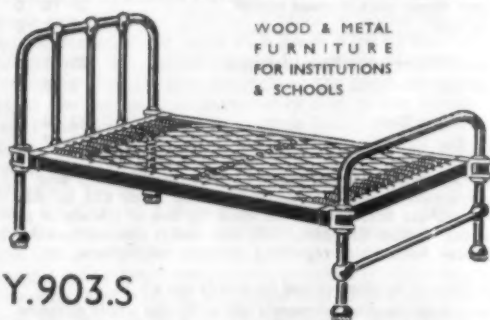
The animals dealt with in this strip are Canadian, but the reactions to the approach of winter of the various groups depicted are very similar to our own fauna. The drawings are in coarse black pencil medium, artistic and reasonably accurate in the case of the larger animals but those of the insects, fortunately only three in number, are crude conceptions with which an intelligent scholar of 11 plus (for whom the strip is intended) would soon find fault; the Monarch butterfly as shown is an artist's creation only. 23 frames.

C. 117—The Story of Confederation.

The introduction shows British North America in 1860 as six separate colonies and a territory, and after indicating that many outstanding leaders had favoured union, proceeds to show several of the most difficult barriers. This is later offset by forces for the union leading to the conferences at Charlottetown and Quebec, and, when the Fenian raids turned the tide in favour of union, to the meeting at London and the passing of the British North America Act. From here onwards the strip shows the gradual expansion of the Dominion from its four provinces

SCHOOL BEDSTEADS

STRONG, STURDY &
ROBUST IN EVERY PART



WOOD & METAL
FURNITURE
FOR INSTITUTIONS
& SCHOOLS

Y.903.S

1½" TUBE BOWS, HEAVY ANGLE FRAME, GUARANTEED
"HOSKWELL" SPRING AND LINK MATTRESS.
STANDARD SIZES 6' 6" x 3' 0" AND 2' 6"

HOSKINS & SEWELL LTD.
BORDLESLEY, BIRMINGHAM, 12

Tel.:
VICTORIA 2340

T'grams:
'HOSKINS' B'HAM

Step by Step

The 'Plasticine' method of modelling enables children of all ages to appreciate the immense possibilities of this world-famous modelling material. Teachers everywhere know the value of 'Plasticine' as a medium for combining pleasure and instruction in child education.



Made only by Harbutt's, the original inventors

Write for details of 'Plasticine', 'Ideal' white and coloured chalks, 'Wonder' and 'Roman City' crayons and 'Plastone' the self-hardening modelling material

HARBUTT'S PLASTICINE LTD
BATHAMPTON · BATH · SOMERSET

CRAM THEM into the

SnoWhite
DRYING GAS and CABINET ELECTRIC



Fill the SnoWhite with all the wet clothing, shoes, hats, coats, etc. (first removing the children) and soon everything is warm, dry and safe to wear. SnoWhite Cabinets are models of efficiency, easy to run and very economical.

Model F.27 illustrated is 6-ft. high x 27-ins. wide x 25-ins. deep. Has 16 swing out drying rails. Finished pastel blue or cream. 3 other sizes. Electric model has 3-heat switch; gas model is thermostatically controlled, ensuring complete temperature control.

**IDEAL FOR TEACHING
DOMESTIC SCIENCE.**

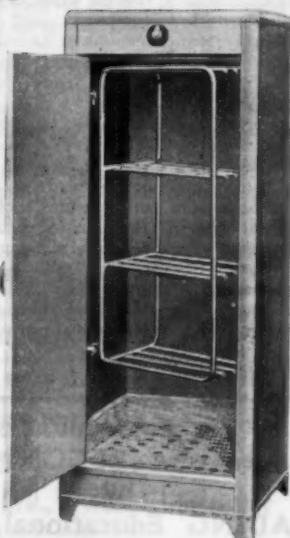
Please write for full details

Sole Manufacturers:

J. GLOVER & SONS LTD.

101, GROTON ROAD
LONDON, S.W.18

Phone: Battersea 6511.



A NEW *NAPT* PUBLICATION

Whys and Wherefores in Tuberculosis

By **GEORGE DAY, MA MD**

A guide book for patients,
their friends and relations—
and everyone else.

44 pages

3s. 6d.

*The NAPT produces many leaflets
dealing with tuberculosis prevention, treatment
and after-care. Write for a list of
NAPT publications.*

THE NATIONAL ASSOCIATION FOR THE PREVENTION OF
TUBERCULOSIS
Tavistock House North, Tavistock Square, London, W.C.1.

QUICK ^{or} COPIES

HOW DO YOU DO IT?

Simply write, type, trace or draw in the normal way. All you need is a piece of paper and a Fordigraph Hecto carbon and you are ready to take copies. No messy inks or gelatine. Fast, economical, clean and up to 7 colours in one operation if required.



IS IT EXPENSIVE?

No. Prices are remarkably low. Educational users and schools can benefit from the Fordigraph special educational terms.

WHERE CAN I SEE IT?

At your school at any time without obligation whatsoever. Simply write to us, we'll gladly arrange to SHOW you how Fordigraph will solve all your duplicating problems.



TO ILLUSTRATE

It's completely portable—no larger than a portable typewriter, folding up into an attractive carrying case.

Fordigraph

LIMITED
35/36, Rathbone Place,
London, W.1.

in 1867 to the tenth in 1949. There are maps to show the position of each province with large captions to impress the date of joining the Dominion. An essential addition to strips dealing with the history of Canada. 52 frames.

- C. 123—Weaving, Part 1—Preparing the Warp. 45 frames.
C. 124—Weaving, Part 2—Setting up the Loom. 55 frames.
C. 125—Weaving, Part 3—General Information. 21 frames.

Strip 1 has 10 frames showing the history of weaving, mentioning the Egyptian, Indian and Chinese methods. Subsequent frames show the many parts to the modern treadle loom, each numbered and dealt with separately. After showing the preparation of the material for the loom the method of winding the warp is dealt with at length (17 frames). Strip 2 concerns the setting up of the loom, and 22 frames should make the matter sufficiently clear. Threading, reeding, or slewing the reed, and weaving comprise the latter part. The excellent photographs have been specially treated to cut out unwanted detail and every process is brilliantly clear. Strip 3 deals with hints and tips—guidance for the careful and avoidance of errors through carelessness—dealing with troubles that arise such as repairs to broken threads, joining new threads or removing crossed threads. Each strip has a very full script explaining in detail all the operations.

Scouts Jubilee Jamboree

The emblem chosen by the Boy Scouts Association for the World Jamboree, to be held at Sutton Park, Warwickshire, in August, 1957, is a combination of the Tudor Rose and the arrow head design of the scout badge (sometimes referred to as a fleur-de-lys).

The reason for the choice of the Tudor Rose of England as the basic design of the badge is fairly obvious. England has the honour to be the country where Scouting found its birth, and to all intents and purposes Warwickshire, where the venue of the Jamboree is situated, is in the very heart of England.

Two of the main purposes of this vast Jamboree will be to proclaim the Fiftieth Year of Scouting (1907 to 1957) and to celebrate the Centenary of the birth of the Founder (Baden-Powell, 1857—1957).

Parents of children attending Brittons Secondary School, South Hornchurch, are to be asked to help find 3,000 books for the school library.

Dr. J. Ewart Smart, Education Officer for Acton, and chairman for nineteen years of the education committee of the Royal Society for the Prevention of Accidents has been elected a Vice-President of the Society.

The Council of the University College, Khartoum, have decided to invite Professor Michael Grant, professor of humanity at Edinburgh University, to succeed Mr. L. C. Wilcher as principal of the college, and to become vice-chancellor designate of the new university of Khartoum.

Great Yarmouth schoolchildren who persistently fail to wear the glasses prescribed for them, will be reported by their head teachers in future, so that the School Medical Officer of Health's department can investigate. The department has notified teachers of the children for whom glasses have been prescribed.

World Increases Expenditure on Education

First International Survey of Financing of Education.

Expenditure on education has been increasing steadily in all countries for some years, it is stated in "Financing of Education" (H.M.S.O., 11s. 6d.) which is a comparative survey, the first of its kind at international level, carried out by the International Bureau of Education with the assistance of fifty-five countries, including the United Kingdom.

In general, the increase in expenditure is said to be due to the endeavours to improve and extend educational provision to meet present day needs and demands. The survey gives illustrations of the increases in different countries and of the place occupied by education in national budgets and incomes. In Venezuela, for instance, the 1955 education budget is sixteen times larger than that of 1935. In Israel, the budget of the Ministry of Education and Culture is the second largest in the country, after that of the Ministry of Defence. Comparative statistics for 1953 supplied by Unesco give Japan as spending the highest proportion of its national income on education (4.34 per cent.). The United Kingdom proportion is estimated at 2.96 per cent.

Teachers' salaries are the largest single item of increase. Next in order of importance are school building, and school equipment and materials.

"Financing of Education" gives details of the distribution of financial responsibility for education among the various administrations in the fifty-five countries contributing to the enquiry, the contributions public authorities make to independent schools, and general information on many other financial aspects of education.

One of the main concerns of the various administrations responsible for education is to find ways and means of meeting increasing financial demands. Some countries mention the imposition of new taxes. In Pakistan for example, there is a special school tax. Colombia has increased the tax on beer to meet deficits in its education budget—and in Mexico taxes on entertainment and petrol have been suggested. Different ways of obtaining voluntary contributions from the public are also listed—ranging from national lotteries in Yugoslavia and Vietnam and the sale of special stamps in Ecuador and Switzerland, to the organization of jumble sales in the small communities of Canada. In Roumania and Bulgaria, villagers give voluntary contributions or assistance to school building.

A few countries, including Jordan and Liberia, express the hope that their needs will be met by increased assistance from foreign sources. The survey lists those countries at present receiving foreign or international help, about one-third of the total. Some fifteen of these refer to assistance from Unesco.

"Financing of Education" is intended to offer administrators and teachers a clear general picture of the several systems of financing education now in force, and of their resemblances and differences. There is no question of any attempt to evaluate the systems, but the International Bureau of Education hopes that the comparisons put forward may serve in some measure to indicate the path towards improvements.

THE "HALL MARK" NAME
"HELIX"
ON COMPASSES & RULES

For Over 60 Years
Stocked and RECOMMENDED
by all
LEADING Educational Suppliers

CANE! CANE! CANE!

Centre Cane, Lapping Cane, Glossy and Enamelled Lapping Cane, Plastic Lapping, Chair Seating Cane, Stout Furniture Cane, Bamboo Garden Canes, Musical Pipe Cane, Split Cane, Coloured Wooden Beads, Fine Laichow Straw Braid, Seagrass and Stool Frames, Plain and Coloured Raffia, Willows, Ply Bases, etc. Lists Free. Special terms to Schools, Institutes, etc. Prompt Rail/Post Despatch.

WHINES and EDGELEER

THE BAMBOO PEOPLE
GODMANSTONE, DORCHESTER, DORSET
Phone: Cern: Abbas 393

Q.

From whom have most potters
and schools bought their electric

POTTERY KILNS

during the last 30 years?

A.

R. M. CATTERSON-SMITH LTD.

Exhibition Grounds: WEMBLEY

Tel. _____ 4291

"Every Man to his Trade"

THE annual visit of the photographer is a red letter day in the lives of your pupils. The school photograph adds interest to the curriculum. It fosters self-respect and pride in the school. The parents are as delighted as the children. In later years the old picture is preserved and produced on special occasions with affectionate memories.

It is IMPORTANT that a thing which is meant to last should be GOOD

THIRTY-FIVE YEARS' EXPERIENCE LIES BEHIND THE FIRM OF
H. TEMPEST LTD., NOTTINGHAM
SCHOOL PHOTOGRAPHERS



By Appointment
to the late
King George VI.
Hard Lawn Tennis
Court Masters.

EN-TOUT-CAS

THE LARGEST MAKERS OF
HARD COURTS AND SPORTS
GROUNDS IN GREAT BRITAIN



By Appointment
Hard Lawn Tennis
Court Masters to H.M.
King Gustav V of
Sweden.

EN-TOUT-CAS COURTS used for the British Hard Court Championships for the last 27 years.

EN-TOUT-CAS RUNNING TRACKS, including IFFLEY ROAD, OXFORD, where the first mile under four minutes was made on 6th May, 1954. Order received for Olympic Games Track Melbourne, Australia, 1956.

EN-TOUT-CAS Sole Makers of Carter's and En-Tout-Cas SQUASH COURTS, which can now be economically and speedily constructed.

EN-TOUT-CAS Sole Makers of "BITUTURF" Practice CRICKET PITCHES

EN-TOUT-CAS design and make SPORTS PAVILIONS, SEATS, SCHOOL FURNITURE, etc.

EN-TOUT-CAS (Published annually) Price List (88 pages) of all kinds of Grass Seeds, Fertilisers, SPORTS GROUND EQUIPMENT and ACCESSORIES (Please send for this).

Booklets, Layouts, Specifications and Estimates, from:

THE EN-TOUT-CAS CO. LTD., Syston, Nr. Leicester

Telephone: Syston 86163-4-5-6

London Office: Harrods (4th Floor), Knightsbridge, S.W.1.

DURALEX TOUGHENED GLASSWARE (Heatproof)

takes some
beating!



It's practically unbreakable!

DURALEX is • ATTRACTIVE • DURABLE • HYGIENIC • ECONOMICAL

- Stands up to hard knocks
- Proof against hot liquids
- Will not crack, craze or discolour
- Can be used safely in Refrigerators

When re-ordering specify — **DURALEX**
TOUGHENED GLASS TABLEWARE

Durablex is obtainable through glass wholesalers, or communicate with Jules Lang and Son, 96 Hatton Garden, London, E.C.1 (Holborn 8687)

HALLIWICK SCHOOL FOR PHYSICALLY HANDICAPPED CHILDREN

WINCHMORE HILL, LONDON, N.21

(Under the auspices of the Church of England Children's Society.)

Girls accepted from 11 years to 16 years from all Local Education and Public Assistance Authorities in the British Isles.

Further particulars from the Matron.

TRY ESPERANTO

Esperanto, the simple international language which is growing in popularity every day, is extremely easy to learn —has only a few simple grammatical rules with no irregularities. It provides easy contact with people of other lands and thus paves the way to international friendship

A complete correspondence course costs only 10s., including textbooks, dictionary and correction of exercises. Send 6d. for informative literature and introductory booklet

BRITISH ESPERANTO ASSOCIATION (INC.)

Dept. S.G.33

140, Holland Park Avenue, London, W.11

PARK YOUR CYCLES THE ODoni WAY

(Regd. Trade Mark)

WITH ODoni (PATENT) "ALL-STEEL"

BICYCLE STANDS

TYPES TO SUIT ALL POSSIBLE REQUIREMENTS
FOR INDOOR OR OUTDOOR USE
SINGLE OR DOUBLE-SIDED
HORIZONTAL OR SEMI-VERTICAL



ODONI. TYPE 4. Single-sided horizontal stand.
NO LIFTING OF CYCLES IN EITHER PARKING OR
REMOVAL.

Write for fully illustrated leaflet and price list to Sale
Manufacturers and Patentees.

ALFRED A. ODoni AND CO., LTD.

SALISBURY HOUSE, LONDON WALL,

Tel. No. : LONDON, E.C.2 Tel. Add. :
NATIONAL 8525/6 (Works : London, N.W.) ODoni Ave London

Minister of Education Receives Manchester Deputation

The Minister of Education, Sir David Eccles, received a deputation from the Manchester City Council comprising the Chairman of the Education Committee (Councillor M. P. Pariser), the Deputy Chairman (Alderman W. H. Oldfield, J.P.), the Town Clerk and the Chief Education Officer on October 4th. The purpose of the deputation was to discuss with him his refusal to approve their proposals to establish comprehensive schools in Wythenshawe.

The Minister explained that he had no wish to deprive authorities of a proper latitude in organising their schools, but that he had to be satisfied that any proposals would meet the needs of the area and would be to the educational advantage of the children concerned. The deputation accepted that all proposals for new schools required the Minister's approval under Section 13 of the Education Act, 1944, and wished him to know that they had never had any intention of defying him; the City Council would of course abide by his final decision. They valued the good relations that had always existed between the Council and the Minister and the deputation felt sure that these would continue.

There was a lengthy discussion on the educational reasons which had led the Council to make their revised proposals.

The Minister said that at Scarborough last April he had made clear the conditions in which he was prepared to allow experiments with comprehensive schools. The deputation had told him that the present proposals represented the only opportunity to try out such schools in Manchester: he was sorry if his decision should deprive the Council of this opportunity, but, for the reasons given in the official letter of August 31st he could not regard these proposals as providing the conditions for a successful experiment. He was not therefore prepared to reconsider his decision and he assumed that the Council would now make the necessary arrangements to implement their original proposals. The deputation said that they would report back to the City Council.

N.U.T. President on Savings

In a message of support for the Schools Savings' Recruitment Week Mr. H. J. Nursey, President of the N.U.T. said: "For the past thirty years, having been associated with the National Savings Movement, I have met all the difficulties, but still remain undaunted in my advocacy of the all round value of savings. My colleagues have done so well during those years that I know they will go forward determined to demonstrate that once more the schools will lead the way. The interests of the children and the Nation "always take priority with the profession."

Dr. Alexander Gatherer has been appointed Deputy Principal School Medical Officer for Warrington.

Mr. A. R. Ward, Assistant Director of Education to the Northumberland authority has retired after 47 years' service with the education department.

Grimsby is to have a safety quiz competition in its schools along the lines of radio's Top of the Form contest. Questions will be asked on the new Highway Code, and on ordinary road sense and good behaviour.

As a further step in the Government's policy of developing technical education the Secretary of State for Scotland has reconstituted and enlarged the five Regional Advisory Councils for technical education which were first established in 1949. On the industrial side there will be greater numbers of both employers and employees; and on the educational side directors of education who were not already members have been added to the Councils.

FOR ADVERTISING SPACE*In the School Government Chronicle*

Please apply to the sole Advertisement Contractors:

A. Darby's Advertising ServiceCOBHAM HOUSE, 24/26, BLACK FRIARS LANE
LONDON, E.C.4

Tel.: CITY 6686 Grams: DARBIADS, CENT., LONDON

BLACKBOARD RENOVATORTo
"Freshen
Up,"
Blacken,
and
Water-
proof.Sample
Free**BLACKBOARD PAINT**Use
where
surface
has worn
away.Sample
Free**T. WEBSTER & CO., LTD.**Makers of the largest and best varieties and sizes of ink powders, also liquid
inks, gums, pastes.

"DIAMINE" WORKS, TARIFF ST., LIVERPOOL, 5, ENG.

THE WORLD'S GREATEST BOOKSHOP**FOYLES**
* FOR BOOKS *All new Books available on day of publication. Secondhand
and rare Books on every subject. Stock of over three million
volumes.Foyles have departments for Gramophone Records, Stationery,
Handicraft Materials, Music.

119-125, CHARING CROSS ROAD, LONDON, W.C.2

Gerrard 5660 (16 lines) ★ Open 9-6 (inc. Sats.)

Two minutes from Tottenham Court Road Station

**S. TYZACK and SON, Ltd.,
TOOL SPECIALISTS,**

341, 343, and 345, Old Street, London, E.C.1

We make a speciality of Complete Equipments.

Lists Free to Institutes and Manual Instructors.

**The subscription to
The School Government Chronicle**

is 13/6 per year post free.

Orders should be sent to the Publisher, School Government
Chronicle, 24 Black Friars Lane, London, E.C.4**OFFICIAL ADVERTISEMENTS****FOR SALE****HAMPSHIRE. BASINGSTOKE 11 MILES**
3 miles from Winchfield Station. London 1 hour.**DOGMERSFIELD PARK**

Eminently suitable for Scholastic or Institutional Purposes.

The well arranged accommodation includes: Halls, 16 Class or
Staff Rooms, and adequate Cloakrooms and Domestic Offices on the
ground floor, and also 32 Bedrooms or Dormitories, Sick Bay and
Head Mistress's Suite.

Central Heating, Main Electric Light, Power and Water.

Five Cottages, Tennis and Squash Courts, Playing Field, Parkland and
Tundry Pond.

IN ALL 188½ ACRES.

VACANT POSSESSION subject to certain tenancies and reservations
FOR SALE BY AUCTION at an early date (unless previously sold).

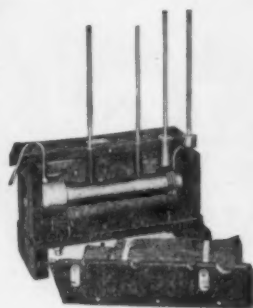
Solicitors: Messrs. Laytons, 21, Old Buildings, Lincoln's Inn, W.C.2.

Auctioneers: Messrs. JOHN D. WOOD and CO., 23, Berkeley
Square, W.1. (Tel.: MAYfair 6341), and MESSRS. KNIGHT,
FRANK AND RUTLEY, 20, Hanover Square, W.1. (Tel.: MAYfair
3771.)**SITUATIONS VACANT****MIDDLESEX COUNTY COUNCIL—
EDUCATION COMMITTEE**RESIDENT DOMESTIC ASSISTANTS (female) required for new
buildings at Maria Grey Training College, 300, St. Margaret's Road,
Twickenham, Middlesex. Wages 114s. per 48 hr. week, less 41s. 3d.
for residential accommodation. Dining room, kitchen and general
cleaning. Prescribed conditions. Apply to Principal immediately.
(Quote R.474 S.G.CH.)**MIDDLESEX COUNTY COUNCIL—EDUCATION
COMMITTEE**RESIDENT SUPERVISOR (female) reqd. at Park Place School,
Henley-on-Thames, Oxon. (accommodating 75 educationally sub-
normal junior boys). Wages 134s. per wk. less 41s. 3d. for residential
accommodation. Hours as requirements of office. Duties include
care welfare during out-of-school hours of small groups of boys.
Prescribed conditions. Application forms (stmpd. add. env.) from
Chief Education Officer (GP/EB) 10, Gt. George St., S.W.1. (Quote
R.321 S.G.C.).**MISCELLANEOUS ADVERTISEMENTS****"FRIGIDAIRE" Low temperature refrigerators.** 49-in. wide
× 28-in. deep × 34-in. high. Ex large National User. Suitable for Deep
Freezing; Storage of Ice Cream; Frozen Foods, etc. Price, £30
each. Domestic Refrigerators, Service Cabinets and Cold Rooms
also available. A.R.C. 130, Great Portland Street, London, W.1.
MUSEum 4480.**SCHOOL MAILING SERVICE.**—Envelopes, etc., machine
addressed to 30,000 schools in Great Britain at 45s. per 1,000.
Seven-day service. Write for details to 98, Kingston Road,
London, S.W.19, mentioning this publication.**HOLIDAY ACCOMMODATION****FOLKESTONE.**—Windsor Hotel, est. 28 years. A.A. approved. Open throughout
year. Recommended Teaching Profession. Illustrated brochure. Phone 51348.**ON HOLIDAY ?**—Visit the Royal Hotel, Shaftesbury. 23 comfortable bedrooms
with H. and C., centrally heated. Comfortable Lounge, Club licence. Excellent
cuisine. Meals served at any time.

SCIENTIFIC INSTRUMENTS

APPARATUS FOR TEACHING

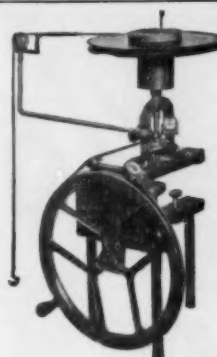
designed by Dr. G. F. C. Searle



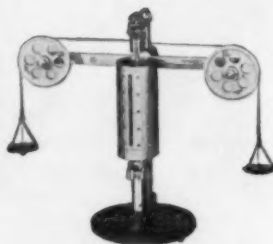
S.G. 9390 THERMAL
CONDUCTIVITY APPARATUS



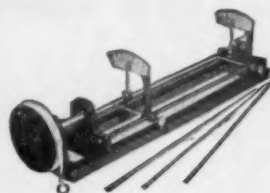
S.G. 6745 YOUNG'S MODULUS APPARATUS



S.G. 9355 MECHANICAL EQUIVALENT
OF HEAT APPARATUS



S.G. 7934 VISCOMETER



S.G. 6575 TORSION OF RODS APPARATUS

We will gladly send a copy of our illustrated catalogue on request

W. G. PYE & CO. LTD • GRANTA WORKS • CAMBRIDGE • ENGLAND

Telephone: Cambridge 4032.

Telegrams: Pye, Cambridge